

SB-3888

9x2 MultiVideo To HDMI/VGA Matrix Selector Switch Scaler

INSTRUCTION MANUAL



IMPORTANT WARRANTY INFORMATION.

If you remove the HDMI screw posts, you must use the provided HDMI Locking Post replacement screws to keep the internal HDMI jack secure. Removing the HDMI screws without installing the HDMI Locking Post replacement screws will void your warranty.

SHINYBOW™ USA
MULTIMEDIA AUDIO AND VISUAL



SAFETY INFORMATION



1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the "ON" position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain.
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance.
 - E. The equipment has been dropped, or the enclosure damaged.

TABLE OF CONTENTS

MultiVideo To HDMI-VGA Matrix Selector Switch Scaler Series

Thank you for purchasing the SB-3888 9x2 MultiVideo to HDMI/VGA Matrix Selector Switch Scaler. You will find this unit easy to install and highly reliable but it is essential that you read this manual thoroughly before attempting to use this selector switcher

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INTRODUCTION

The SB-3888 is a professional 9x2 MultiVideo to HDMI-VGA -Video Matrix-PiP-PoP Selector Switch Scaler. Supporting (9) input sources (1) Composite Video/Stereo Audio, (1) Component Video/Stereo Audio, (2) VGA/Stereo Audio, (1) SDI, (4) HDMI and (2) group matrix outputs with (1) HDMI, (1) VGA, (1) Composite Video (NTSC/PAL), (1) Stereo Audio with audio equalizer) features that can be easily configured and controlled. Supports HDMI output resolutions up to 1080p with a signal bandwidth of 165MHz (1920x1200) and data rates up to 4.95Gbps with no signal degradation. The SB-3888 is HDMI 1.3 and HDCP 1.2 compliant, with CE and FCC certifications. Supports (3) matrixed PiP & PoP function modes. Control function keys in the Menu button have EDID, Resolution, TV Video system, IP Channel, COAX channel, ENMOTOR™ channel, Volume, Balance Audio control and switch System Reset, Zoom, Recall, Memory, Audio (Audio Breakaway) and Mute (HDMI audio) can be selected between (5) levels when using the PiP-PoP mode. The second output uses (1) optional modular card that supports (2) different signal types: HDMI (included with base model), HDBaseT™ (100M) and HDBaseT™ (100M HDMI over HDBaseT™). Input resolutions can be scaled up to 1080p or down to 480p. The analog audio output features Audio Equalizer (EQ) Treble, Surround, Flat, Classic, Rock, Pops, Jazz, 3D and Bass. Control is provided via front panel push buttons, IR remote, RS-232 or TCP/IP (not a web-browser).

LOOK A PUPPY!! NOW READ THIS!!



IMPORTANT WARRANTY INFORMATION.

If you remove the HDMI screw posts, you must use the provided HDMI Locking Post replacement screws to keep the internal HDMI jack secure. Removing the HDMI screws without installing the HDMI Locking Post replacement screws will void your warranty.

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

DISCLAIMERS

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FEATURES & CONTENTS

FEATURES

- The 9x2 Seamless MultiVideo Matrix Switch Scaler
- (9) source inputs to (2) display outputs Matrix, PiP, PoP Selector Switch Scaler
- (9) Input Sources: (1) Composite Video/Audio, (1) Component Video/Audio, (2) VGA/Audio, (1) SDI, (4) HDMI
- (2) Outputs supports Output-1: (1) HDMI, (1) VGA, (1) Video and Audio with EQ
- Modular Output-2: (1) Optional Modular Card slot (HDMI card included with base model)
- Supports Matrix (9x2), PiP (Picture in Picture) and PoP (Picture of Picture) function modes
- Link speeds up to 4.95Gbps (link clock rate of 165MHz), HDMI 1.3 and HDCP 1.2 compliant
- Digital Video TMDS formats resolution up to 1080p with Deep color 36bit
- Inputs Supported:
 - (1) Composite Video/Stereo Audio
 - (1) Component Video/Stereo Audio
 - (2) VGA/Audio
 - (1) SDI
 - (4) HDMI
- Outputs Supported:
 - (1) HDMI 1080P-60Hz
 - (1) VGA
 - (1) Composite Video (NTSC/ PAL/ PAL-M/ PAL-Nc)
 - (1) Stereo audio (AR/AL) with Audio equalizer
- Second Output: (1) Optional Modular card type
- Zoom management can be selected between (5) levels
- Swap functions to change the picture position on PiP or PoP mode
- Audio Breakaway function to select video source and another ports audio source
- Supports Audio Volume and Balance (0~100 levels) control function
- Remembers memory locations up to (9) addresses (9 source buttons)
- Mute function mutes HDMI Audio output
- Audio Equalizer: 1. By Pass, 2. Treble, 3. Surround, 4. Flat, 5. Classic, 6. Rock, 7. Pops, 8. Jazz, 9. With 3D, 10. With Bass
- (16) Control Buttons: Menu/ Exit/ Matrix/ PiP/ PoP/ Audio/ Mute/ Enter/ Zoom/ Lock/ Reset/ Recall/ Memory
- Scaling Supported: Scaling down to 480p / Scaling up to 1080p
- Supports SDI 1080p-30Hz input to HDMI 1080p-30Hz Output
- HDMI cable distances for 1080p-60Hz up to 98 ft (30M)
- IR remote control Frequency (38KHz)
- Various User Interface Controls:
 - Windows based GUI via RS-232 interface control driver for 2000/XP/WIN7-32/WIN7-64/WIN8
 - Front panel push buttons
 - IR wireless remote control
 - Ethernet switch control
 - Third party RS-232 control (via simple ASCII)
- Power supply Universal Type switch 100~240VAC, 50/60Hz

PACKAGE CONTENTS

Check that you have the following components;

- SB-3888 Selector Switch Scaler
- RS-232 V1.0/Ethernet V1.0 Protocol Instructions
- Master wireless IR Remote Control (SW-3888)
- 19 inch Ear mount bracket (Part # 1U-440L)
- SB-100 IR Extender Receiver set
- SB-100C IR Extender Receiver Cable (6.5 ft (2M))
- CD Contents: Manual, Windows GUI, ISP V2.0 Windows driver
- RS-232 Cable 6.5 ft (2M)
- HDMI Locking Post Replacement Screws
- Users Guide
- Universal Power Supply: 100~240VAC, AC 50/60Hz






SPECIFICATIONS

SPECIFICATIONS

- **Type of Switcher:** 9x2 Seamless MultiVideo to HDMI-VGA-Video Matrix PiP-PoP Selector Switch Scaler
- **Function Modes:** Matrix, PiP & PoP
- **HDMI Supported:** HDMI 1080p@60Hz, H36-bit Deep color
- **HDCP / HDMI Supported:** HDCP 1.2 Compliant, HDMI 1.3 version
- **Video Bandwidth:** Double Data Rates: 165Mhz, Total 4.95Gbps bandwidth
- **Scaling Video Supported:** HD: 480i/ 480p/ 720p and up to 1080i/p **NOTE:** Supports SDI in/out 1080p-30Hz
- **(9) Source Inputs:** (1) Composite Video/Stereo Audio, (1) Component Video/Stereo Audio, (2) VGA/Stereo Audio, (1) SDI, (4) HDMI
- **Outputs:** (1) HDMI, (1) VGA, (1) Composite Video (NTSC/PAL), (1) Stereo Audio
- **External Second Output:** (1) Optional Modular Cards: HDMI (Included with Base Model), HDBaseT™ or HDBaseT™ (PoH)
- **PiP Zoom Type:** (5) zoom sizes
- **Audio Breakaway:** Select separate Video and Audio source routing
- **Recall-Memory:** Memory location for (9) addresses: (9) source selection buttons
- **Mute Audio:** Mutes the HDMI audio output
- **Audio Equalizer:** 1. By Pass, 2. Treble, 3. Surround, 4. Flat, 5. Classic, 6. Rock, 7. Pops, 8. Jazz, 9. With 3D, 10. With Bass
- **Switch Controls:**
 - Select & Function buttons on the front panel
 - IR Remote Control (switch control)
 - Ethernet
 - RS-232
- **HDMI Signal Booster:** Distance for 1080p cable up to 98 feet (30M)
- **Infrared Frequency:** 38Khz
- **Firmware Update:** Firmware update via RS-232
- **HDMI I/O Connector:** HDMI Type A - SMD 19pin female type
- **Temperature:** Operating Temperature 32°F - 100°F (0°C - 32°C)
- **Rack Mount:** 19 inch 1U High Rack Mount bracket (P/N: 1U-440L)
- **Dimensions (LxWxH):** 17.32 x 9.84 x 1.73 in (440x250x44mm)
- **Power Supply:** AC 100~240VAC 50/60Hz (universal type supply)
- **Safety Approvals:** CE, FCC, REACH
- **Weight:** 2.36 Kgs / 5.19 lb (Unit only)

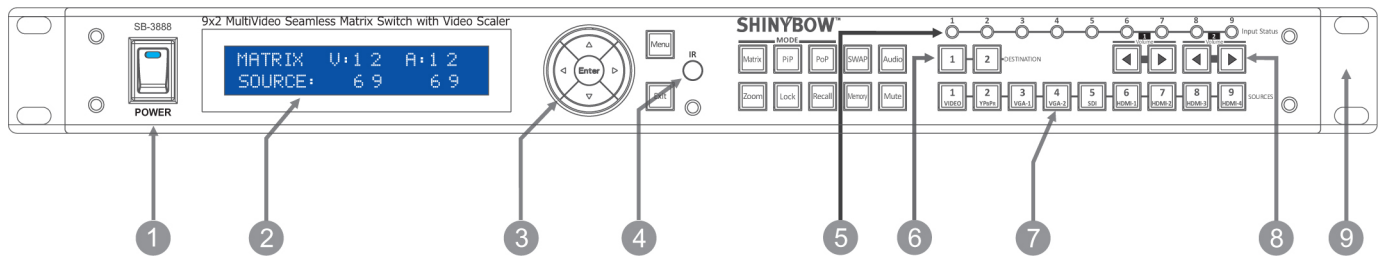
As product improvements are continuous, specifications are subject to change and without notice.

VIDEO MODE APPLICATION:

Support Mode / Video Output	HDMI Output 	VGA Output 	Composite Video Output 	NOTE:
MATRIX:	OK	OK	OK	PiP & PoP mode supports 1080p only
PiP & PoP:	OK	OK	X	

FRONT PANEL

FRONT PANEL



1. POWER SWITCH: The power switch turns the unit on and off. The LED will illuminate blue to indicate that the switcher is ON and is receiving power. The switcher will remember that last state during a power cycle. When power is removed and resorted, the last configuration will be evoked.

2. STATUS DISPLAY: Front panel status display shows the current 9x2 matrix routing configuration. This same display also shows the particular configuration settings depending on your current function. In run mode (as shown above), the display shows each Output (destination) Channel and which Input (source) it is assigned.

3. FIVE KEY CIRCULAR BUTTONS: Press the Circular button to select Output #1 & #2 or other function modes.

4. IR SENSOR: The IR sensor receives IR commands from the supplied remote control or third party IR emitter.

5. INPUT STATUS DISPLAY: Input sources 1 to 9 LED illuminates blue to indicate that a video source is present on that input.

6. DESTINATION SELECT BUTTONS: Separate Inputs 1 thru 2 select buttons are provided each destination selection.

7. SOURCE SELECT BUTTONS: Separate inputs 1 thru 9 select buttons are provided each source selection.

Input-01 : Video (Composite)

Input-04 : VGA2

Input-07 : HD2 (HDMI-2)

Input-02 : YUV (YPBPR)

Input-05 : SDI

Input-08 : HD3 (HDMI-3)

Input-03 : VGA1

Input-06 : HD1 (HDMI-1)

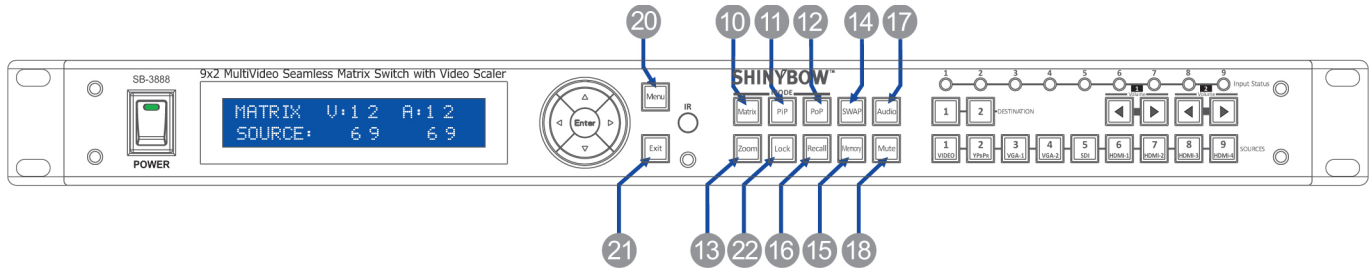
Input-09 : HD4 (HDMI-4)

8. OUTPUT-1 & OUTPUT-2 VOLUME ADJUST BUTTONS: Separate 1 thru 2 Audio volume adjust control buttons are provided each output selection.

9. 19 INCH EAR MOUNT PAIR: Converts to a 19 inch rack mount. Bracket (part number: 1U-440L) INCLUDED. (Image shows rack mount bracket attached.)

FUNCTION KEY - MATRIX

FUNCTION KEY



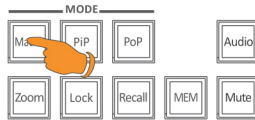
10. FUNCTION KEY: MATRIX (9:2)

To enable the **MATRIX SWITCH** option on a specific Destination, perform the following steps:

1. Press **OUTPUT 1 THRU 2** button on the **DESTINATION** row (the button will illuminate momentarily).



2. Press the mode function **MATRIX** button, the screen will return to matrix switch status.



3. Press the **SOURCE 1 THRU 9** button to select the **A/V OUTPUT** (the button will illuminate)
The new configuration will take affect. Press either function keys or **EXIT** to cancel the operation.



- 02 - Component / Audio
- 03 - VGA / Audio
- 04 - VGA / Audio
- 05 - SDI
- 06 - HDMI
- 07 - HDMI
- 08 - HDMI
- 09 - HDMI

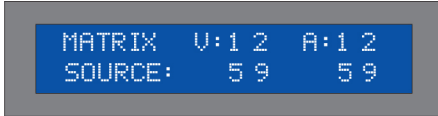
Operation completes.

FUNCTION KEY - PiP

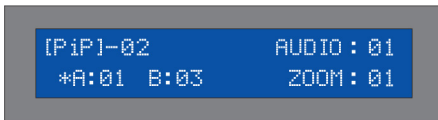
11. FUNCTION KEY: PiP:

To enable the PiP option on a specific Destination perform the following steps:

1. Press **OUTPUT 1 THRU 2** button on the **DESTINATION** row, for PiP mode (the button will illuminate momentarily).



2. Press the **PiP** button, the screen will return to **PiP** mode status.

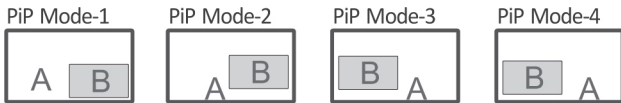


PiP button (A and B position)

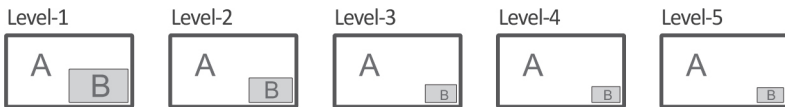


Video Default: A: 03, B: 05 source
Audio Default: A source

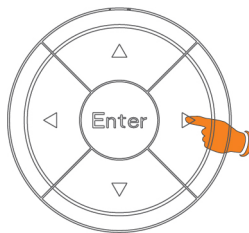
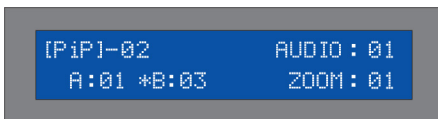
3. Press the **PiP** button again to cycle thru the (4) **PiP** modes or press **EXIT** to cancel the operation.



4. Press the **ZOOM** button repeatedly, the PiP picture will cycle thru the Zoom 1 to Zoom 5 levels.



5. Press the **LEFT** or **RIGHT** circular button to select the **A** or **B** video source (the button will illuminate).



6. Press the **SOURCE 1 THRU 9** buttons to select A/V sources (the button will illuminate).

Operation completes.

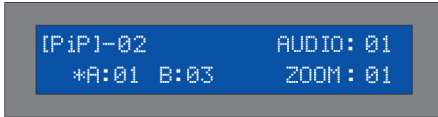
NOTE: The **PiP** audio will follow position A's audio source, or press the **AUDIO** button (audio breakaway) to select either audio source. The new configuration will be stored and show **PiP** status on the LCM display or press either function keys or press **EXIT** to cancel the operation.

FUNCTION KEY - PoP

11. FUNCTION KEY: PoP:

To enable the **PoP** option on a specific Destination, perform the following steps:

1. Press **OUTPUT 1 THRU 2** button on the **DESTINATION** row, for **PoP** mode (the button will illuminate momentarily).



2. Press the **PoP** button, the screen will return to **PoP** mode status.



PoP button (A and B position)



Video Default: A: H1, B: H2 source
Audio Default: A source

3. Press the **PoP** button again to cycle thru the (2) **PoP** modes or press **EXIT** to cancel the operation.

PoP Mode-1



PoP Mode-2



4. Press the **ZOOM** button repeatedly, **PoP** picture will cycle thru the Zoom 1 to Zoom 5 levels.

Level-1



Level-2



Level-3



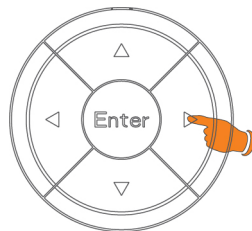
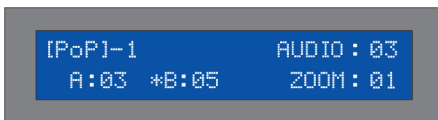
Level-4



Level-5



5. Press the **LEFT** or **RIGHT** circular button to select the A, B video source (the button will illuminate). Press **ENTER** or **EXIT** to store the new settings.



6. Press the **SOURCE 1 THRU 9** buttons to select A/V sources (the button will illuminate).

Operation completes.

NOTE: The **PoP** audio will follow position **A's** audio source, or press the **AUDIO** button (audio breakaway) to select either audio source. The new configuration will be stored and show **PoP** status on the LCM display or press either function keys or press **EXIT** to cancel the operation.

FUNCTION KEY - ZOOM / SWAP

13. FUNCTION KEY: ZOOM:

SETUP ZOOM MODE FROM PiP.

To enable **ZOOM** mode on **PiP** for a specific Output, perform the following steps:

1. In the system setup for the **PiP** mode, the **PiP** position will move around the corners of the screen.
2. Press the **ZOOM** button to increase or decrease the “**B**” picture size on the screen.



PiP (B Size-1)



PiP (B Size-2)



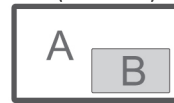
PiP (B Size-3)



PiP (B Size-4)



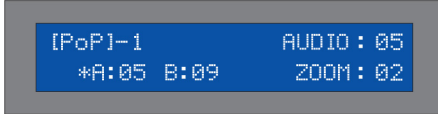
PiP (B Size-5)



SETUP ZOOM MODE FROM PoP.

To enable the **ZOOM** mode on **PoP** for a specific Output, perform the following steps:

1. In the system setup for the **PoP** mode, the **PoP** position will move around the corners of the screen.
2. Press the **ZOOM** button to reduce the “**A & B**” picture on the screen.



PoP (B: Size-1)



PoP (B: Size-2)



PoP (B: Size-3)



PoP (B: Size-4)



PoP (B: Size-5)

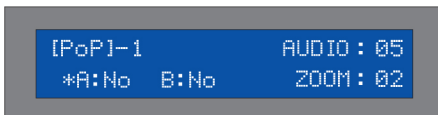


14. FUNCTION KEY: SWAP:

Setup **SWAP** mode from **PiP** or **PoP**.

To enable the **SWAP** button on **PiP** or **PoP** option mode for change **A** and **B** position, perform the following steps:

1. Press the **SWAP** button, select system setting “**No**” to select the “**A**” Source.
2. Press the **SWAP** button again to select the “**B**” source on the screen.



The new configuration will be stored and show **PiP** or **PoP** status on the LCM display.

3. Press **ENTER**. The new configuration will be stored. Or press either function keys or press **EXIT** to cancel the operation.

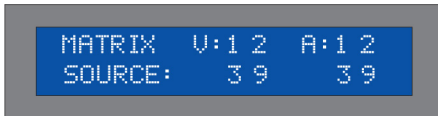
Operation completes.

FUNCTION KEY - MEMORY

15. FUNCTION KEY: MEMORY:

MEMORY mode to **MEMORY** Destination 1 or 2 when Matrix, PiP or PoP status.

The system will show stored presets up to a total of (9) in each Output-1 or 2. Presets are stored in local memory using Source keys **1 THRU 9** as the memory preset location.



- System status
- MATRIX OUTPUT-1, Video -03, Audio -03
- Configure desired matrices

1. Press the **MEMORY** button. The LCM display will show the current **MEMORY** status.



2. Press the **A/V SOURCE 1 THRU 9** row (the button will illuminate) or press **EXIT** to cancel the operation.

Example: Select **SOURCE-6 HDMI-1**



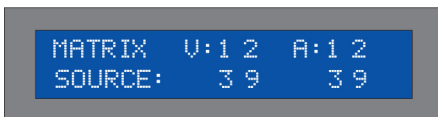
3. Press **ENTER** the pre-set configuration will execute and the LCM will return to the default screen showing selected **Matrix/PiP/PoP** status or press **MEMORY** again or press **EXIT** to cancel the operation.

Operation completes.

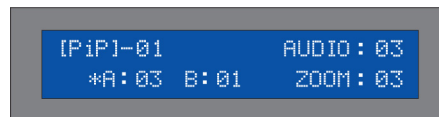
NOTE: RECALL will store current status as follows:

MATRIX status, **PIP** status, **PoP** status, **ZOOM** status, **EDID** status, **AUDIO** status, **MUTE ON/OFF**.

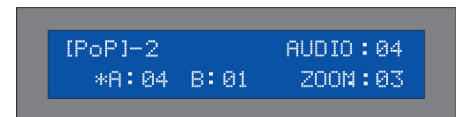
1. **MEMORY** when **MATRIX** status.



2. **MEMORY** when **PIP** status.



3. **MEMORY** when **PoP** status.



NOTE: MEMORY will store the current status as follows:

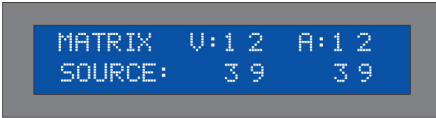
MATRIX status, **PIP** status, **POP** status, **ZOOM** status, **VOL/BAL** status, **RESOLUTION**, **EDID** status, **A/V AUDIO** status, **MUTE ON/OFF**

FUNCTION KEY - RECALL

16. FUNCTION KEY: RECALL:

RECALL the memory shown previously in stored presets.

The system will show previously stored presets, up to a total of (9). Preset are stored in local memory using the A/V source keys **1 THRU 9** as the memory preset locations.



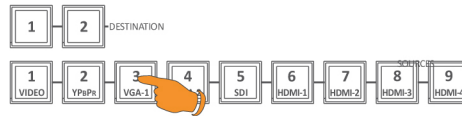
- System status
- MATRIX OUTPUT-1: Video -03, Audio -03
- Configure desired matrices

1. Press the **RECALL** button. The LCM display will show the **RECALL** buttons as “**NONE**” as the current status.

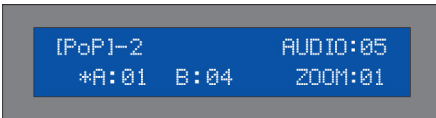


2. Press the **A/V SOURCE 1 THRU 9** row (the button will illuminate) or press **EXIT** to cancel operation.

Example: Select **SOURCE-6** button is memory **MATRIX**.



3. Press **ENTER** the pre-set configuration will execute and the LCM will return to the default screen showing selected **MATRIX/PIP/POp** status or press **RECALL** again or press **EXIT** to cancel the operation.

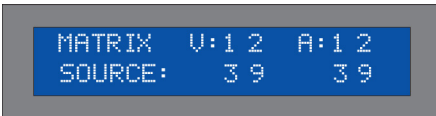


- **RECALL** the system status
- PoP OUTPUT-2: A: 01, B: 04, Audio: 05, Zoom: 01
- Operation completes

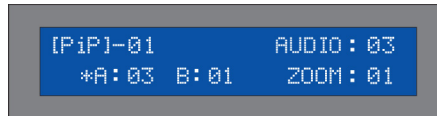
NOTE: RECALL will store current status as follows:

MATRIX status, **PIp** status, **PoP** status, **ZOOM** status, **EDID** status, **AUDIO** status, **MUTE ON/OFF**.

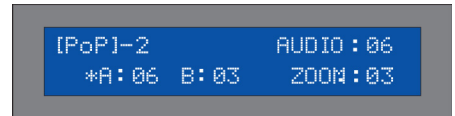
1. **MEMORY** when **MATRIX** status.



2. **MEMORY** when **PIp** status.



3. **MEMORY** when **PoP** status.



NOTE: MEMORY will store the current status as follows:

MATRIX status, **PIp** status, **POP** status, **ZOOM** status, **VOL/BAL** status, **RESOLUTION**, **EDID** status, **A/V AUDIO** status, **MUTE ON/OFF**

FUNCTION KEY - AUDIO BREAKAWAY

17. FUNCTION KEY: AUDIO BREAKAWAY:

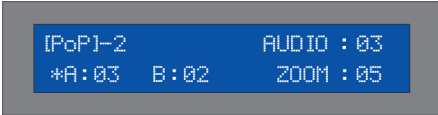


AUDIO BREAKAWAY Mode to separate Video and Audio.

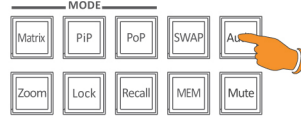
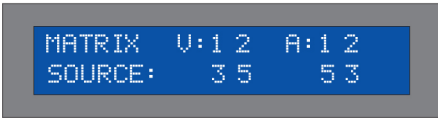
The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

Using the **AUDIO BREAKAWAY** the system will separate the Video and Audio output.

1. Press **OUTPUT 1 THRU 2** buttons on the **DESTINATION** row, for Output-1 or Output-2 setup into **AUDIO BREAKAWAY** status (the button will illuminate momentarily) or press the **AUDIO** button again to cancel the operation.



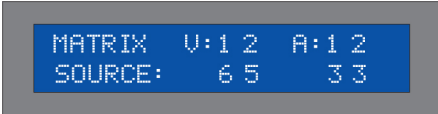
2. Press the **AUDIO BREAKAWAY** button. The LCM display will show the current **A/V** status.



Video Output: Source 5 (Input-5 SDI Video)
Audio Output: Source 3 (Input-3 VGA Audio)

3. Press the **SOURCE 1 THRU 9** buttons to select the **Audio Output** (the button will illuminate). Press the selected **SOURCE** again or press the **AUDIO** button again to cancel the operation.

Example: Output-1 select **03-VGA-1** and Video is **06-HDMI-1**



4. Press **ENTER**. The new configuration will be stored or press **AUDIO** again or press **EXIT** to cancel the operation and the LCM will return to the default screen showing the selected **Matrix/PiP/PoP** status.

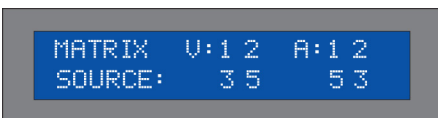
Operation completes.

DISABLE AUDIO BREAKAWAY

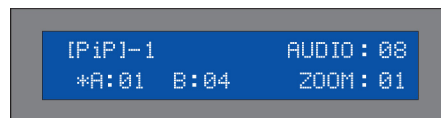
1. Select **DESTINATION 1 OR 2** to cancel the **AUDIO BREAKAWAY** function
2. Press the **AUDIO** button and the **AUDIO BREAKAWAY** will be cancelled.
3. Press the selected **SOURCE** button again to disable the **AUDIO BREAKAWAY** function.

AUDIO BREAKAWAY: The LCM display will show the mode **Matrix/PiP/PoP** status.

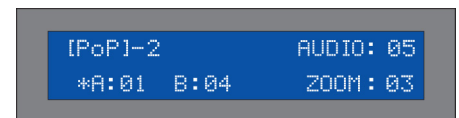
1. **AUDIO BREAKAWAY: MATRIX** status.



2. **AUDIO BREAKAWAY: PiP** status.

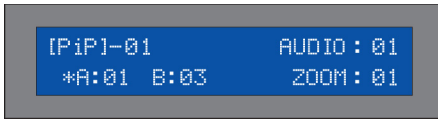


3. **AUDIO BREAKAWAY: PoP** status.



FUNCTION KEY - MUTE / EXIT / LOCK

18. FUNCTION KEY: MUTE:



Audio **MUTE** Mode to mute audio.

The LCM will not show OUTPUT-2 on the display when Modular Output-2 port is removed.

1. Press the **MUTE** button once. The **MUTE** button LED will illuminate when **MUTE** is turned on.
2. Press the **MUTE** button again to return to the current status.

19. FUNCTION KEY: EXIT:

1. Press the **EXIT** button to return to the current status.

20. FUNCTION KEY: LOCK:

Setup **LOCK** mode to lockout the front panel.

1. Press and hold the **LOCK** button for **3** seconds to lockout the front panel.
2. Press and hold the **LOCK** button for **3** seconds to enable the front panel.

NOTE: The front panel will remain locked during a power cycle.

The new configuration will be stored and show **MATRIX** status on the LCM display or press either of the function keys **Matrix/PiP/PoP** to cancel the operation.

Operation completes.

FUNCTION KEY - MENU

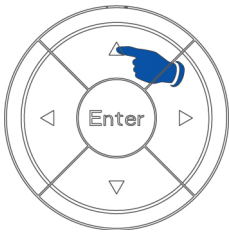
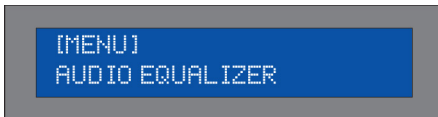
20. FUNCTION KEY: MENU

MENU mode to adjust or set the Output-1 or Output-2 function status.

MENU Function Modes: Setup the embedded **EDID** mode, **Output Resolutions**, **Audio Volume**, **Audio Balance(R/L)**, **Audio EQ**, **TV Video System** standard, **Over IP** or **Coax Channels**. Presets are stored in local **Audio EQ** using the **MENU** button.

Configure desired matrices.

1. Press the **MENU** button. The LCM display will display current **1. EDID** status.



Adjusting list:

1. EDID
2. Software & Hardware Info
3. PiP Board Line: On / Off
4. Modular Card: Info
5. IR Remote Custom Code
6. Reset
7. TV Video System Output
8. Audio Equalizer
9. Audio Balance
10. Resolution

2. Press **ENTER** or **DOWN** buttons to ready the memory location or **EXIT** to cancel the operation.

PS: Audio EQ Settings: Falt, Classic, Rock, PoPs and Jazz only one function can be turned "**ON**" at a time, all other functions will be turned "**OFF**".

Operation completes.

FUNCTION KEY - MENU [EDID]

21. FUNCTION KEY: MENU [EDID]

OUTPUT-1 & OUTPUT-2 EDID Learning mode M2 setup

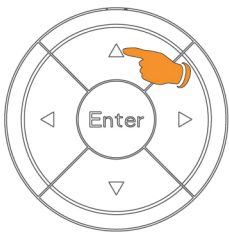
The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

To enable the **Learning EDID** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



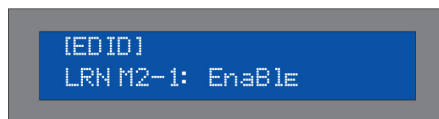
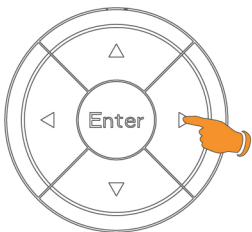
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **EDID** modes. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.



FUNCTION KEYS TYPES:

- EDID
- Resolution
- Audio Balance
- Audio Equalizer
- TV Video system
- Reset
- IP Channel 6800
- COAX DTV Channel 6700
- COAX Channel 6750

3. Press the **LEFT** or **RIGHT** circular button to cycle thru the **EDID Learning M2** modes (Enable or Disable). The switcher will **LEARN** destination **HDMI EDID** and pass to the selected source.



The switcher will **LEARN** the destination **HDMI EDID** and pass to the selected source. The switcher will display “**Enable**” or “**Disable**” **HDMI EDID** status for the selected source.

4. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

Operation completes.

NOTE:

When the Source has “**Learned**” the **EDID** data from a destination, it will save that EDID information into EPROM and the EDID data will not change. To change the saved **HDMI EDID** information, you have to select a new **LEARNING** destination to source or disable the **LEARNING**.

FUNCTION KEY - MENU [RESOLUTION]

22. FUNCTION KEY: MENU [RESOLUTION]

OUTPUT-1 & OUTPUT-2 Resolution Setup

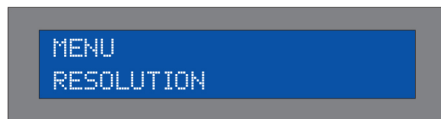
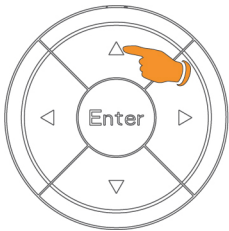
The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

To enable the **Learning EDID** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



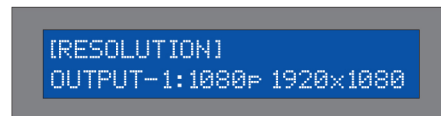
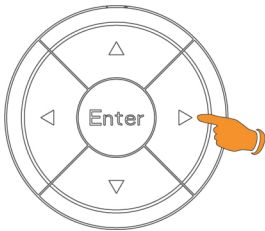
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **RESOLUTION** modes. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.



FUNCTION KEYS TYPES:

- EDID
- Resolution
- Audio Balance
- Audio Equalizer
- TV Video system
- Reset
- IP Channel 6800
- COAX DTV Channel 6700
- COAX Channel 6750

3. Press the **LEFT** or **RIGHT** circular button to cycle thru the **RESOLUTION** modes (Enable or Disable).



HDMI Output Resolutions:	
1. 480p 720x480	7. SVGA 800x600
2. 576p 720x576	8. XGA 1024x768
3. 720p 1080x720	9. SXGA 1280x1024
4. 1080i 1920x1080	10. WXGA 1366x768
5. 1080p 1920x1080	11. WUXGA 1920x1200
6. VGA 640x480	

4. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PIP/POP** status.

Operation completes.

FUNCTION KEY - MENU [AUDIO BALANCE]

23. FUNCTION KEY: MENU [AUDIO BALANCE]

AUDIO BALANCE mode to control Audio Balance (R/L).

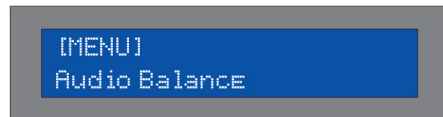
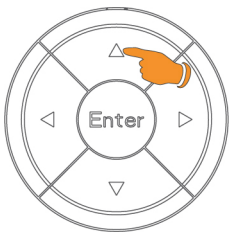
The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

To enable the **Learning EDID** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



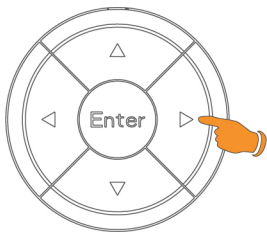
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **AUDIO BALANCE** modes. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.



FUNCTION KEYS TYPES:

- EDID
- Resolution
- Audio Balance
- Audio Equalizer
- TV Video system
- Reset
- IP Channel 6800
- COAX DTV Channel 6700
- COAX Channel 6750

3. Press the **LEFT** or **RIGHT** circular button to cycle thru the **AUDIO BALANCE** modes.



HDMI Output Resolutions:	
1. 480p 720x480	7. SVGA 800x600
2. 576p 720x576	8. XGA 1024x768
3. 720p 1080x720	9. SXGA 1280x1024
4. 1080i 1920x1080	10. WXGA 1366x768
5. 1080p 1920x1080	11. WUXGA 1920x1200
6. VGA 640x480	

4. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PIP/POP** status.

Operation completes.

FUNCTION KEY - MENU (AUDIO EQUALIZER)

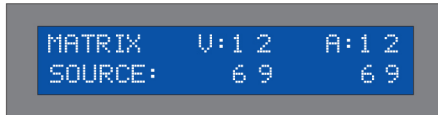
24. FUNCTION KEY: MENU (AUDIO EQUALIZER)

AUDIO EQUALIZER mode to control the Audio Equalizer.

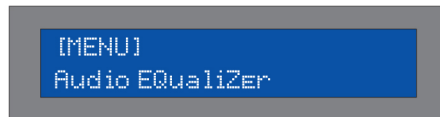
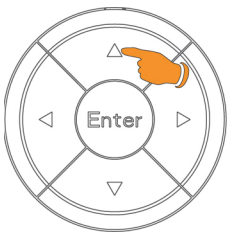
The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

To enable the **Learning EDID** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



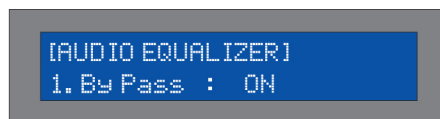
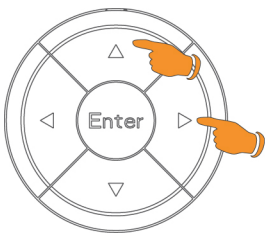
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **AUDIO EQUALIZER** modes. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.



FUNCTION KEYS TYPES:

- EDID
- Resolution
- Audio Balance
- Audio Equalizer
- TV Video system
- Reset
- IP Channel 6800
- COAX DTV Channel 6700
- COAX Channel 6750

3. Press the **LEFT** or **RIGHT** circular button to cycle thru the **AUDIO EQUALIZER** modes. Press the **LEFT** or **RIGHT** circular button to cycle thru the Output **ON** or **OFF** mode.



AUDIO EQ:

- 1. By Pass : ON/OFF (Default)
- 2. Treble : 1 ~ 10 (1 step: 3dB)
- 3. Surround : ON/OFF
- 4. OFF Flat Rock PoPs Jazz Classic
- 5. With 3D : ON/OFF
- 6. With Bass : ON/OFF

4. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PIP/PoP** status.

Operation completes.

FUNCTION KEY - MENU [TV VIDEO SYSTEM STANDARD]

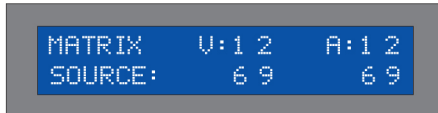
25. FUNCTION KEY: MENU [TV VIDEO SYSTEM STANDARD]

TV VIDEO SYSTEM mode to control output TV output system standard.

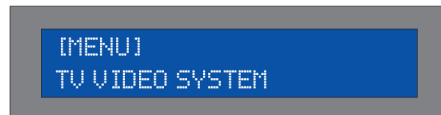
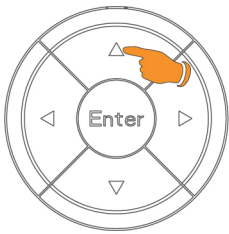
The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

To enable the **Learning EDID** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



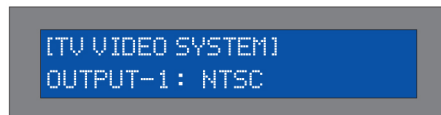
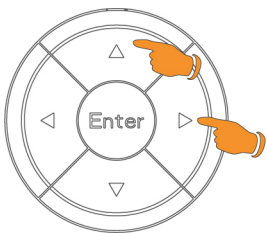
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **TV VIDEO SYSTEM** modes. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.



FUNCTION KEYS TYPES:

- EDID
- Resolution
- Audio Balance
- Audio Equalizer
- TV Video system
- Reset
- IP Channel 6800
- COAX DTV Channel 6700
- COAX Channel 6750

3. Press the **LEFT** or **RIGHT** circular button to cycle thru the **TV VIDEO SYSTEM** modes. Press the **LEFT** or **RIGHT** circular button to cycle thru the **(4)** Output Video systems.



The will be **TV VIDEO SYSTEM** Embedded up to a total of (4) modes.

1. NTSC M/N
2. PAL (B/D/G/H/I/N/NTSC4.43)
3. PAL-M (PAL-60)
4. PAL-Nc (COMB-N)

4. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PIP/PoP** status.

Operation completes.

FUNCTION KEY - MENU [RESET]

26. FUNCTION KEY: MENU [RESET]

FOR RETURN TO FACTORY DEFAULT.

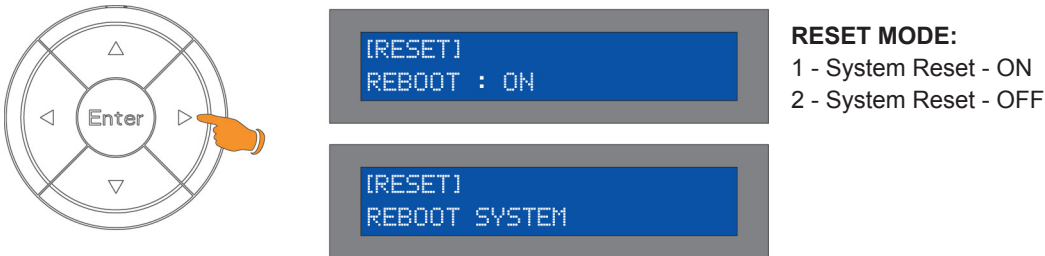
The LCM display will show the **SYSTEM RESET** status. The system will return to factory default.

To setup the switcher for the **SYSTEM RESET** command, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



2. Press the **LEFT** or **RIGHT** circular button to select **SYSTEM RESET ON** or **OFF** function (the button will illuminate).



3. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PiP/PoP** status.

Operation completes.

FACTORY DEFAULT TABLE:

1. The Resolution Output returns to 1080p-60Hz (2CH).
2. The SW mode returns to Source #1.
3. The PiP mode returns to Source # OUT-1 A/B (1,2) and OUT-2 C/D (3,4).
4. The PoP mode returns to source # OUT-1 A/B (1,2) and OUT-2 C/D (3,4).
5. The EDID LEARNING mode shows Enabled.
6. The TV Video system Output returns to NTSC 3.58 MHz.
7. The IP, RS-232 Brad Rate returns to 9600
8. The IP Channel returns to CH-001
9. The Coax Channel returns to CH-001
10. The Memory mode returns to empty.

FUNCTION KEY - MENU [IP CHANNEL]

27. FUNCTION KEY: MENU [IP CHANNEL]

IP CHANNEL mode setup the IP Transmitter output.

The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

To enable the **IP CHANNEL** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



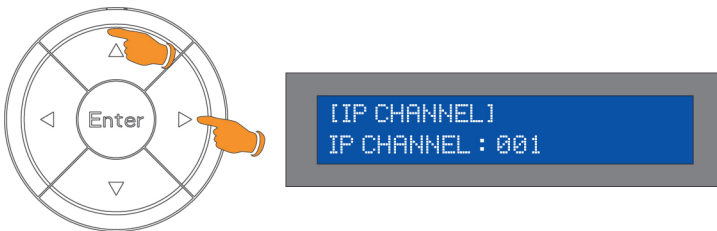
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **IP CHANNEL** modes. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.



FUNCTION KEYS TYPES:

EDID
Resolution
Audio Balance
Audio Equalizer
TV Video system
Reset
IP Channel 6800
COAX DTV Channel 6700
COAX Channel 6750

3. Press the **UP / DOWN** circular button to select **IP CHANNEL** (the button will illuminate). Press the **LEFT** or **RIGHT** circular button to setup the **IP Channel 000 ~ 063**.



Setup the IP CHANNEL: IP Channel (CH000 ~ CH063)

Optional Modular Output-2 Setting:

- IP Channel (CH000 ~ CH063)
- RS-232 Baud Rate

4. Press the **LEFT** or **RIGHT** circular button to cycle thru the RS-232 Baud Rate (the button will illuminate). Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.



Setup the RS-232 Baud Rate:

- 2400 - 28800
- 4800 - 38400
- 9600 - 57600
- 19200 - 115200

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PIP/PoP** status. Operation completes.

FUNCTION KEY - MENU [COAX DTV CHANNEL]

28. FUNCTION KEY: MENU [COAX DTV CHANNEL]

To setup the **COAX DTV CHANNEL** mode via COAX cable output.

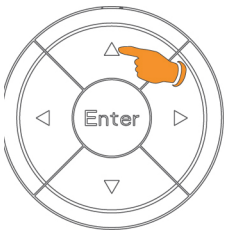
The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

To enable the **DTV Channel** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



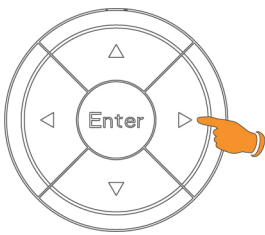
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **COAX DTV CHANNEL** mode. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.



FUNCTION KEYS TYPES:

- EDID
- Resolution
- Audio Balance
- Audio Equalizer
- TV Video system
- Reset
- IP Channel 6800
- COAX DTV Channel 6700
- COAX Channel 6750

3. Press the **LEFT** or **RIGHT** circular button to csetup the **Coax DTV Channel 000 ~ 063**.



Setup the Coax DTV CHANNEL:

- Optional Modular Output-2 Setting:**
- Coax DTV Channel (CH000 ~ Ch063)

4. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PIP/PoP** status.

Operation completes.

FUNCTION KEY - MENU [COAX CHANNEL]

29. FUNCTION KEY: MENU [COAX CHANNEL]

To setup the **COAX CHANNEL** mode via COAX cable output.

The LCM will not show OUTPUT-2 on the display when the Modular Output-2 port is removed.

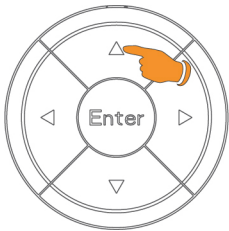
To enable the **COAX CHANNEL** mode option on a specific Output, perform the following steps:

1. Press the **DESTINATION 1 OR 2** function button to select OUTPUT #1 or OUTPUT #2 (the button will illuminate). Press the **ENTER** button to confirm the new configuration or press **EXIT** to cancel the operation.



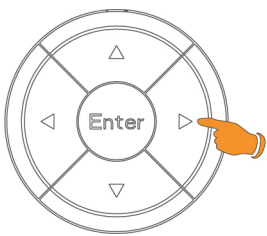
2. Press the **MENU** button, the LCM display will show the current **MENU** mode embedded status. Press the **UP** or **DOWN** circular button to cycle thru the **COAX CHANNEL** mode. Press the **ENTER** button to confirm new configuration or press **EXIT** to cancel the operation.

FUNCTION KEYS TYPES:



EDID
Resolution
Audio Balance
Audio Equalizer
TV Video system
Reset
IP Channel 6800
COAX DTV Channel 6700
COAX Channel 6750

3. Press the **LEFT** or **RIGHT** circular button to csetup the **COAX CHANNEL 000 ~ 063**.



Setup the COAX CHANNEL:

Optional Modular Output-2 Setting:
- Coax DTV Channel (CH000 ~ Ch063)

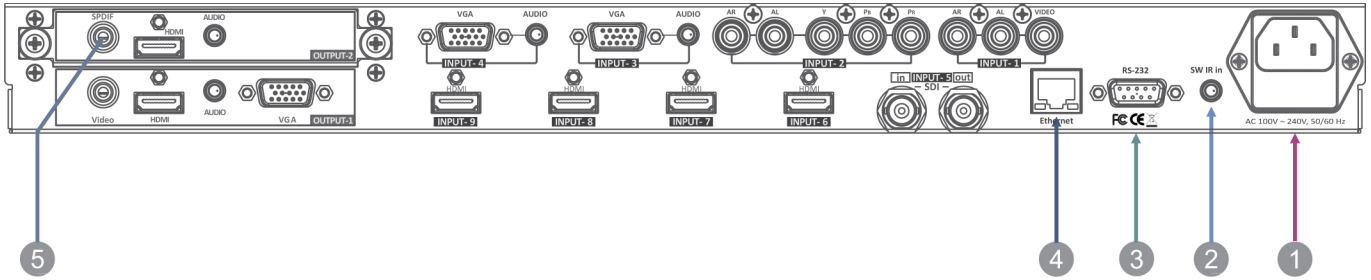
4. Press **ENTER**. The new configuration will be stored or press **EXIT** to cancel the operation.

The new configuration will be stored and the LCM will return to the default screen showing the selected **Matrix/PIP/PoP** status.

Operation completes.

BACK PANEL

BACK PANEL



1. POWER INLET: The switcher is fitted with an AC power plug input connector. Ensure that the plug used is of an approved type and is of sufficient current carrying connector capacity with the correct voltage and connector polarity. 100~240Volt AC, 50/60Hz power supply included.



POWER SOCKET :

Connector Type : IEC 60320 C13

2. IR EXTENDER CONTROL: Supports (1) IR Extender for a maximum distance of up to ~984 feet/300M. When you plug the External IR extender into the switcher, the front panel IR receiver remains active.

SW IR in

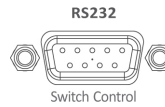


Switch Control

IR EXTENDER JACK:

Female Jack - inner OD Ø 3.5 mm

3. RS-232 CONNECTION: The RS-232 control port allows for interfacing to a PC, such as a computer or touch panel control, to the switcher via a DB-9pin female connector for serial RS-232 control.

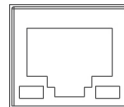


Switch Control

This port also supports Firmware updates.
REMOTE PORT: D-SUB-9pin female connector

4. ETHERNET CONNECTION: The ETHERNET control port allows for TCP/IP interfacing to a PC, such as a computer or touch panel control (not a web-browser), to the switcher via a RJ-45 female connector to control switcher.

Ethernet



Switch Control

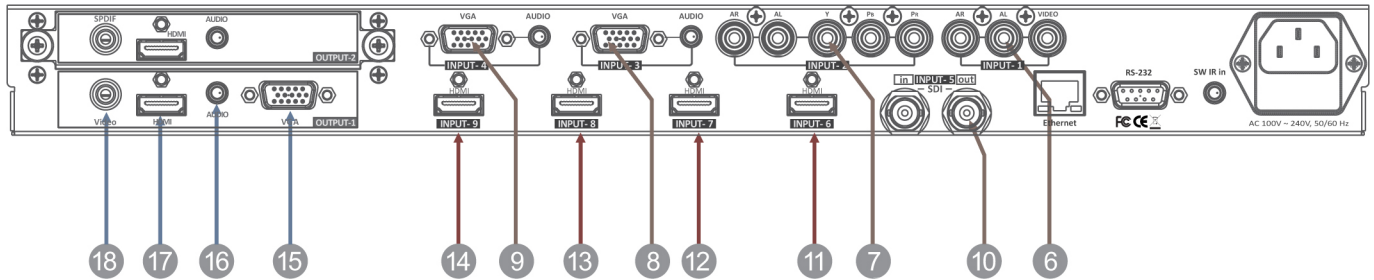
REMOTE PORT: Controls the switcher with a RJ-45 Female connector

Ethernet Port:

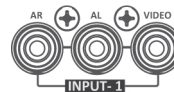
Note: The Ethernet port and RS-232 port cannot be used simultaneously. Any connection to the Ethernet port will disable serial commands sent to the RS-232 port.

BACK PANEL

BACK PANEL

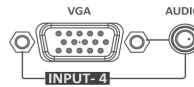


6. VIDEO/AUDIO INPUT: Connects a Video/Audio (Composite video) signal source to the Composite Video connector.



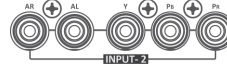
Video (Composite) (1) RCA female connector
Audio (Stereo Audio) (2) RCA female connectors
Note: With (3) RCA female connectors.

7. COMPONENT VIDEO/AUDIO INPUT: Connects a Component Video-Audio signal source to the Component Video connector.



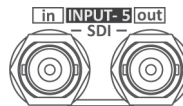
Component Video (YPBPR) (1) RCA connector
Audio (Stereo Audio) (2) RCA female connectors
Note: With (3) RCA female connectors.

8./9. VGA / AUDIO INPUT: Connects a VGA (RGBHV) and stereo audio signal to the DB-15F female connector. Supports VGA (RGBHV) and stereo Audio(AR/AL) to the VGA monitor or display.



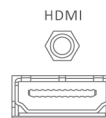
VGA (1) female HD-15F connector
Audio (1) uses a OD3.5mm female jack

10. SDI INPUT: Connects a SDI (BNC) signal source to the BNC connector.



SDI Input (1) BNC female socket
SDI Loopout (1) BNC female socket

11./12./13./14. HDMI INPUTS: Connects a HDMI signal to the HDMI female connector. Supports HDMI digital video and audio to the HDMI display. If you remove the HDMI screw posts, you must use the provided HDMI Locking Post replacement screws to keep the internal HDMI jack secure. Removing the HDMI screws without installing the HDMI Locking Post replacement screws will void your warranty.



HDMI digital video and audio with (4) HDMI female connectors

15. VGA OUTPUT: Connects a VGA (RGBHV) signal source to the VGA connector.



VGA (RGBHV) (1) HD-15P female socket
Note: D-SUB-HD15P female socket.

16. AUDIO OUTPUT: Connects the stereo audio output port of your source audio device to the stereo audio (AR/AL) inputs.



Stereo Audio (AR/AL) via (1) OD3.5mm ear phone jack connector
Note: (1) female phone jack.

17. HDMI OUTPUT: Connects a HDMI digital video/audio signal link direct to the female HDMI connector. Supports HDMI digital video/audio and DVI digital video sources.



HDMI female connector
Note: With proper adapters, the scaler can be used with DVI digital video signals.

18. COMPOSITE VIDEO OUTPUT: Connects a Composite Video output signal to the connector.



Composite Video via (1) RCA connector
Note: (1) female RCA connector.

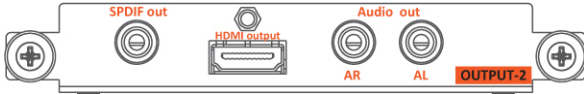
OPTIONAL MODULAR OUTPUT CARDS

OPTIONAL MODULAR TABLE :

3888 MODULAR: SCALER OUTPUT 2

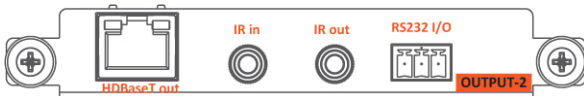
MODEL: T-HDMI-A: HDMI BOOSTER WITH AUDIO OUTPUT (INCLUDED)

(1) HDMI OUT, (1) STEREO AUDIO & (1) SPDIF OUT



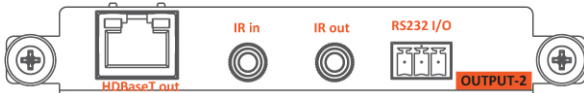
MODEL: T-HDBT-100: HDMI OVER HDBASET™ OUTPUT

(1) HDBT OUT (100M), (1) IR IN/OUT & RS-232



MODEL: T-HDBT-100P: HDMI OVER HDBASET™ OUTPUT W/ POH

(1) HDBT POH OUT (100M), (1) IR IN/OUT & RS-232



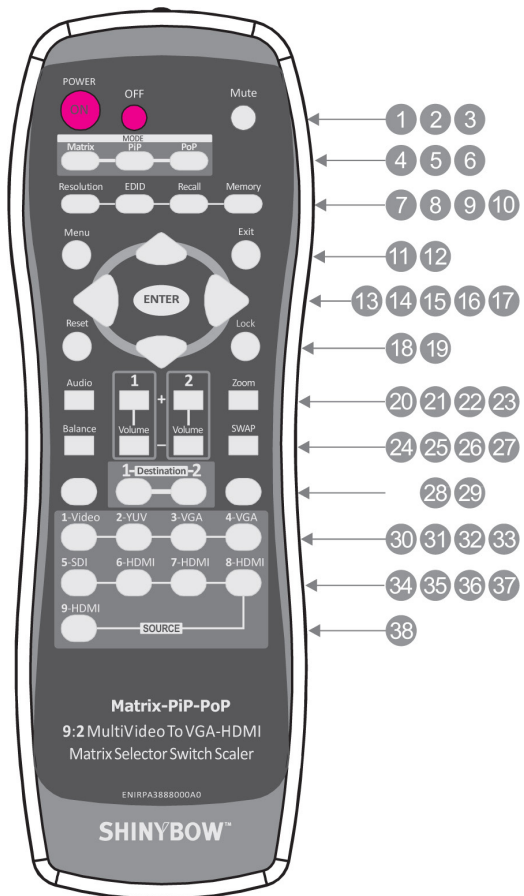
REMOTE CONTROL & REMOTE PROTOCOL COMMANDS

BEFORE MAKING ANY CONNECTIONS OBSERVE THE FOLLOWING:

- Ensure the main voltage supply matches the label on the supplied plug-pack (+/-10%).
- Ensure that the power switch is OFF.
- Ensure that all system grounds (earth) are connected to a common point.
- Avoid powering equipment within a system from multiple power sources that may be separated by large distances.
- Connect all audio video sources and destination equipment.
- Power up all source and destination audio-visual sources.
- To yield video/audio to an output, select the input source by using the front panel input buttons, the supplied IR remote control, or through the RS-232 serial communication port.
- Upon power up the switcher will return to its last used setting before being powered down.

REMOTE CONTROL

IR REMOTE CONTROL KEY :



1./2./3. POWER ON AND OFF: Turns on or off the scaler-switch
MUTE: Mutes the HDMI Audio

4./5./6. MATRIX/ PIP/ POP buttons

7./8./9./10. RESOLUTION / EDID / RECALL / MEMORY buttons

11./12. MENU / EXIT buttons

13./14./15./16./17. ENTER / UP / DOWN / RIGHT / LEFT buttons

18./19. RESET / LOCK buttons

20./21./22./23. AUDIO / VOLUME CONTROL + / ZOOM buttons

24./25./26./27. BALANCE / VOLUME- CONTROL - / SWAP buttons

28./29. OUTPUT-1 / OUTPUT-2 buttons

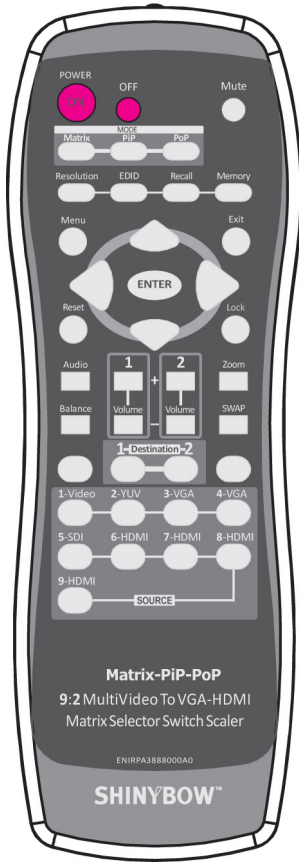
30./31./32./33. INPUTS: 1. VIDEO, 2. YPBPR, 3. VGA, 4. VGA buttons

34./35./36./47. INPUTS: 5. SDI, 6. HDMI, 7. HDMI, 8. HDMI buttons

38. INPUT: 9. HDMI button

IR DATA CODE LIST

IR REMOTE CUSTOM AND DATA CODES (NEC Standard)



HOW TO SETUP IR CODES :

POWER ON: 6798 A15E
POWER OFF: 6798 A25D
MUTE: 6798 9E61

MATRIX: 6798 9C63
PIP: 6798 EE11
POP: 6798 EF10

RESOLUTION: 6798 EA15
EDID: 6798 B748
RECALL: 6798 B24D
MEMORY: 6798 8976

MENU: 6798 A55A
EXIT: 6798 A659
RESET: 6798 9B64
LOCK: 6798 B54A

ENTER: 6798 AB54
UP: 6798 A758
DOWN: 6798 A857
RIGHT: 6798 AA55
LEFT: 6798 A956

CUSTOM CODE : 6798

AUDIO: 6798 BA45
1-VOLUME+: 6798 8D72
2-VOLUME+: 6798 DB42
ZOOM: 6798 AF50
BALANCE: 6798 9D62
1-VOLUME-: 6798 8E71
2-VOLUME-: 6798 BE41
SWAP: 6798 E01F

DESTINATION-1: 6798 E817
DESTINATION-2: 6798 E916

1. VIDEO IN: 6798 01FE
2. COMPONENT: 6798 02FD
3. VGA-1: 6798 03FC
4. VGA-2: 6798 04FB
5. SDI: 6798 05FA
6. HDMI-1: 6798 06F9
7. HDMI-2: 6798 07F8
8. HDMI-3: 6798 08F7
9. HDMI-4: 6798 09F6

Example 1:

Select Input VGA-1
 The IR Data Code: 6798 01FE

Example 2:

Menu -> move right -> move down to next layer -> enter to confirm selection.

The IR Data Code: 6798 A55A 6798 AA55 6798 A857 6798 AB54

RS-232 & ETHERNET SERIAL INTERFACE

RS-232 & ETHERNET SERIAL INTERFACE CONNECT a PC or CONTROL SYSTEM. VERSION COMPATIBLE V1.0

For a complete list of commands, please reference external document extended RS-232 Protocol Instruction Manual.

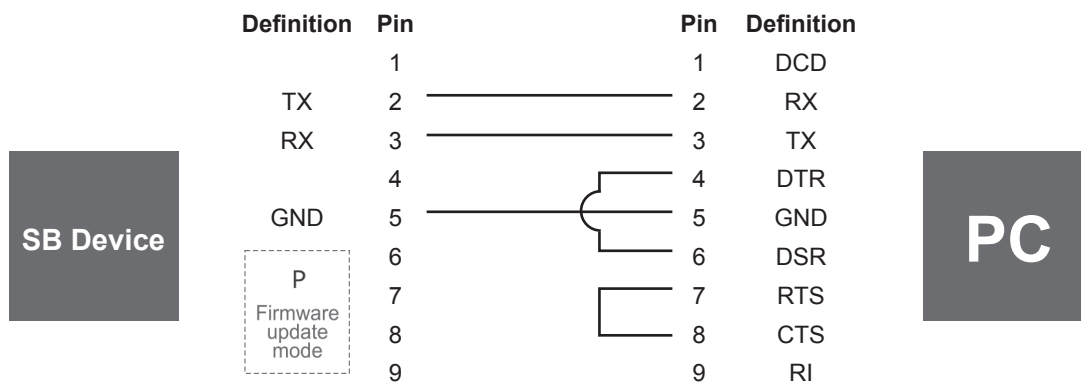
Example of the command string to select Inputs:

FUNCTION	COMMAND	COMMAND VARIABLES
Select source	Source xxx,	xxx = Input Channel (001=Source1, 002=Source2 .etc)

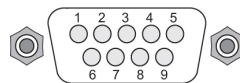
COMMAND EXAMPLE	RESPONSE	DESCRIPTION
Source 001,	Source 001#ok;	Select source number 1

RS-232 CONFIGURATION

RS-232 cable is a straight thru cable and not null-modem



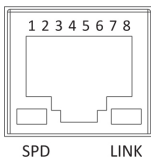
RS-232 Pin Diagram



RS-232 SERIAL INTERFACE PROTOCOL COMMANDS

The Shinybow switcher can be controlled via the RS-232 serial control port to allow for interfacing to a PC, or similar third party control systems. The serial communication parameters are 9600 baud, 8 bit, No Parity and 1 stop bit - this is often referred to as 9600 8N1. When the unit recognizes a complete command it will perform the requested action - there is no delimiter character required.

Ethernet



Note:

Control the switcher

SPD: Speed

LINK: Ethernet link

RJ-45 Female 8P-8 Connector

ETHERNET SERIAL INTERFACE

Pin	Ethernet	Reference
1	TXOP	TX +
2	TXON	TX -
3	RXIP	RX +
4	NC	
5	NC	
6	RXIN	RX -
7	NC	
8	GND	

ETHERNET TCP/IP PROTOCOL COMMANDS (Ethernet / RS-232 Control driver V1.0)

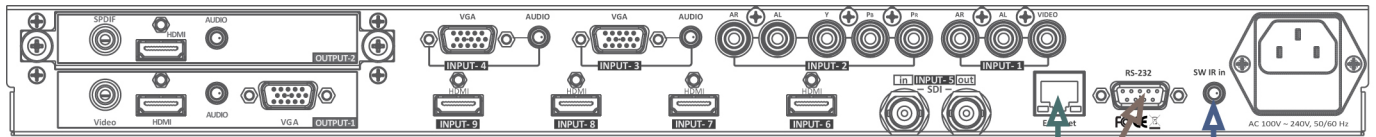
*** The Ethernet port and RS-232 port cannot be used simultaneously. Any connection to the Ethernet Control port will disable serial commands sent to the RS-232 port. ***

TYPICAL APPLICATION

INSTALLING DIAGRAM

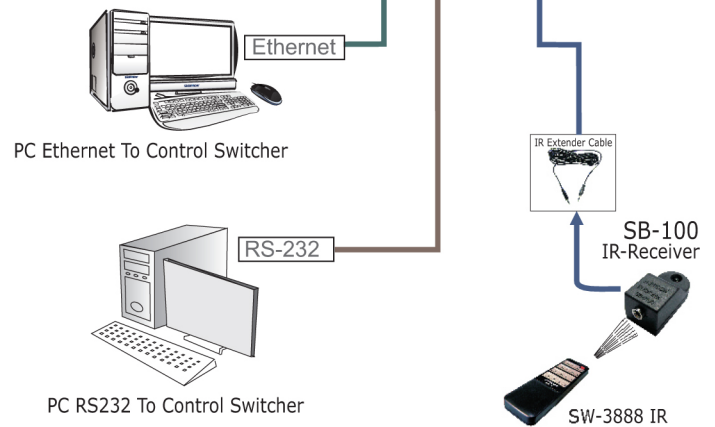
Sample Connection:

1. Using the IR External, RS-232 series interface or Ethernet place the command to control the SB-3888 via PC or the IR external receiver (model SB-100) to transmit the SB-3888's IR remote signal.



NOTE:

1. Switcher IR External Port: Use SB-100 IR signal Receiver.
2. Control Switch via a PC RS-232 series interface.
3. Control Switch via a PC Ethernet.



Application control the switcher via RS-232 series interface, IR remote controller and Ethernet.

TYPICAL APPLICATION

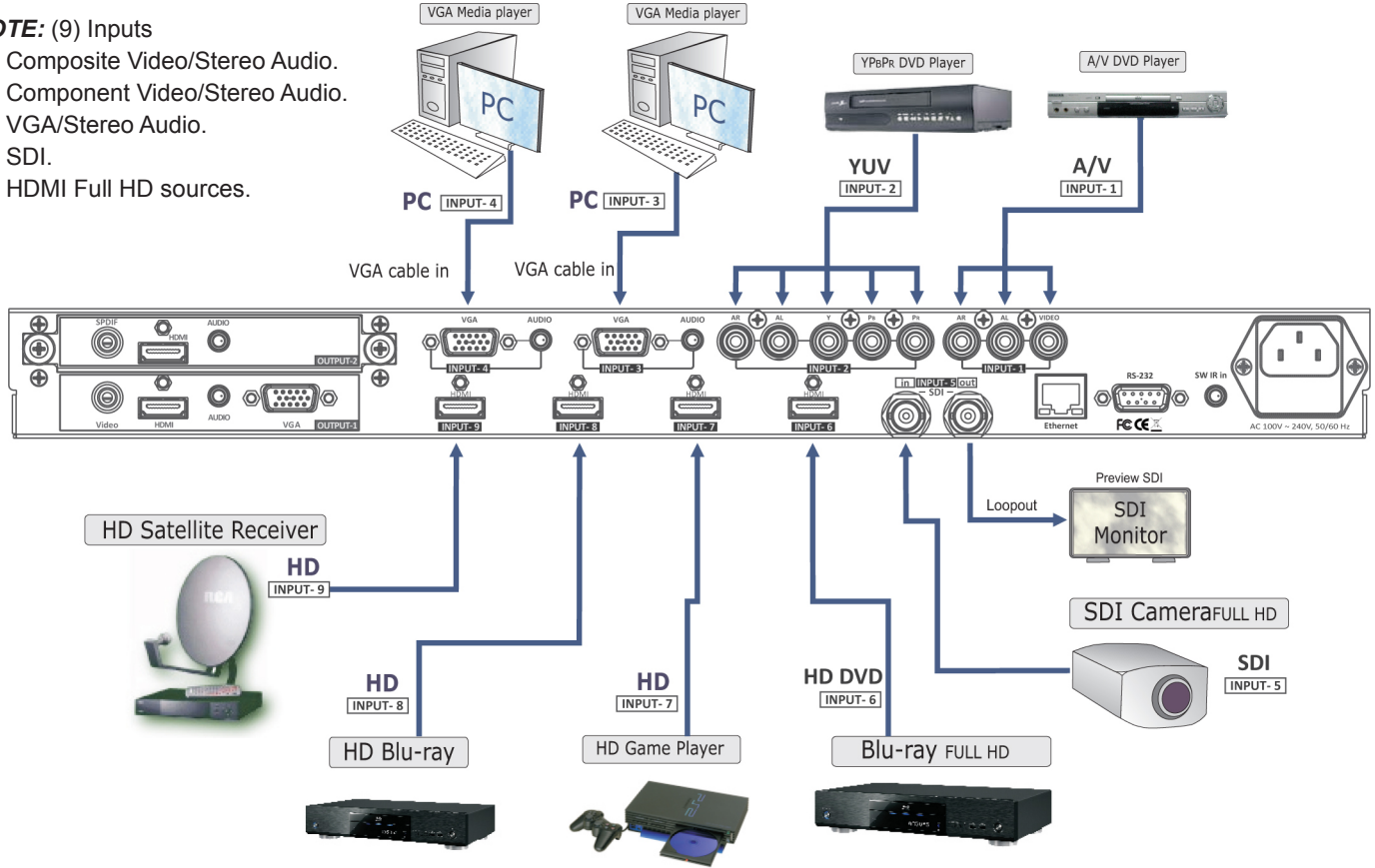
INSTALLING DIAGRAM

Sample Connection:

Using (9) A/V sources input and scaling up to (2) HD resolutions matrix outputs.

NOTE: (9) Inputs

- (1) Composite Video/Stereo Audio.
- (1) Component Video/Stereo Audio.
- (2) VGA/Stereo Audio.
- (1) SDI.
- (4) HDMI Full HD sources.



Applications (9) A/V sources inputs matrix to (2) HD resolution outputs.

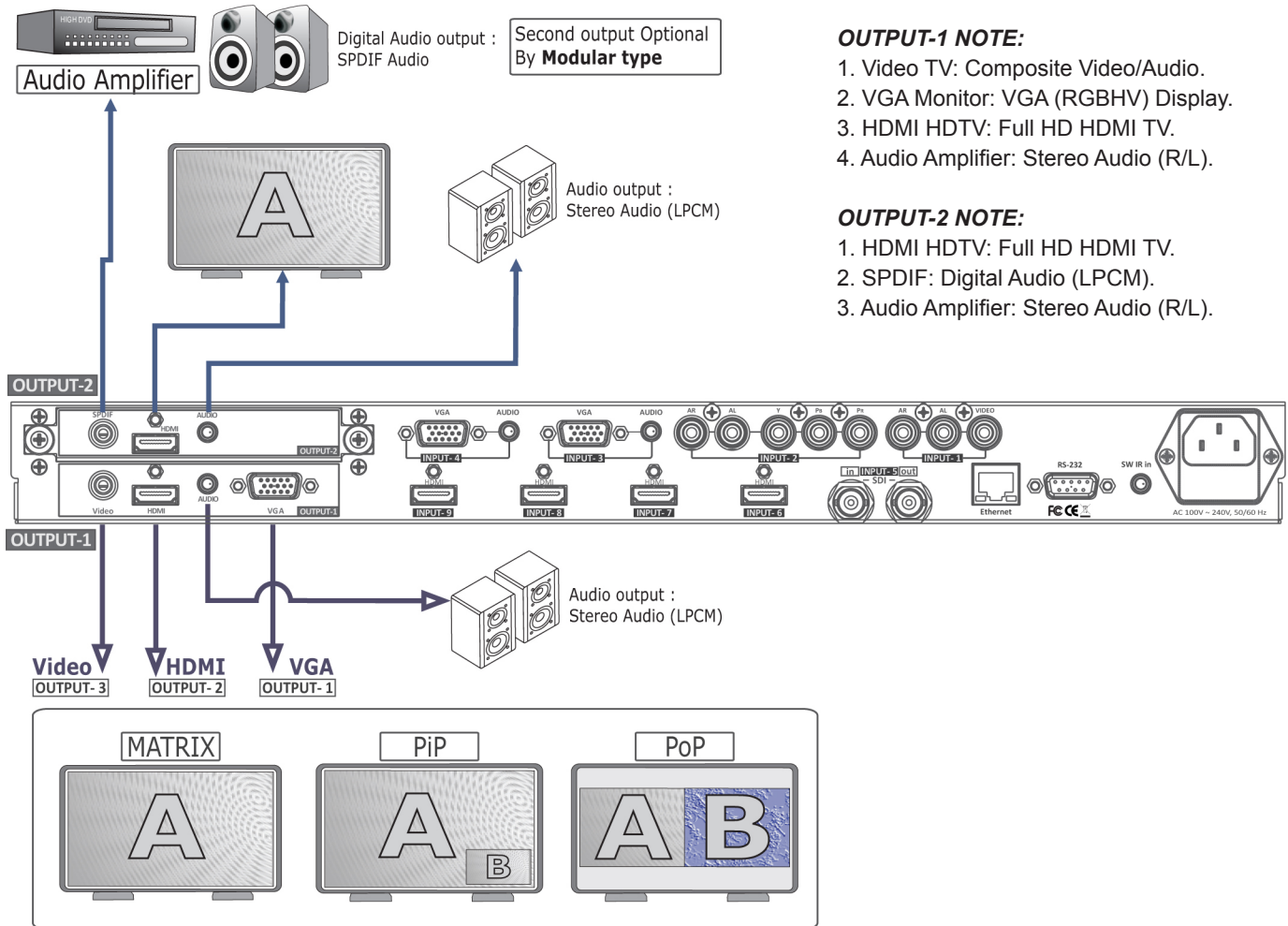
TYPICAL APPLICATION

INSTALLING DIAGRAM

Sample Connection:

OUTPUT-1. Using Composite Video, VGA, HDMI and Stereo signal connected to a HDTV.

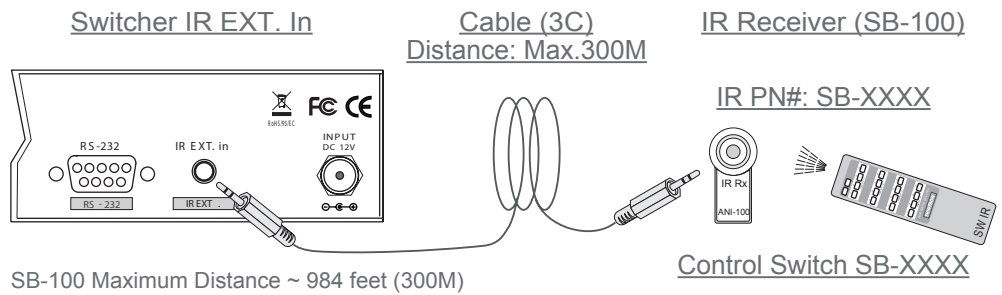
OUTPUT-2. Using Modular type output HDMI, SPDIF and Stereo Audio signal connected to a HDTV.



Application Video, VGA & HDMI (3) outputs, Second output via Modular card.

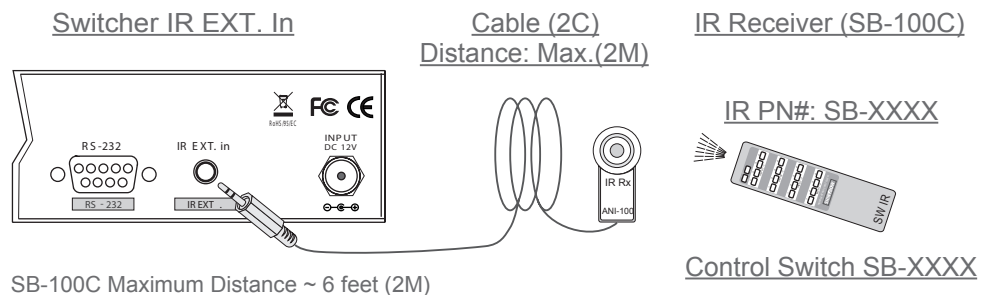
IR EXTENDER

1. SB-100 IR 300M Receiver



The SB-100 IR Receiver is required when using the port "ALL in" Jack.

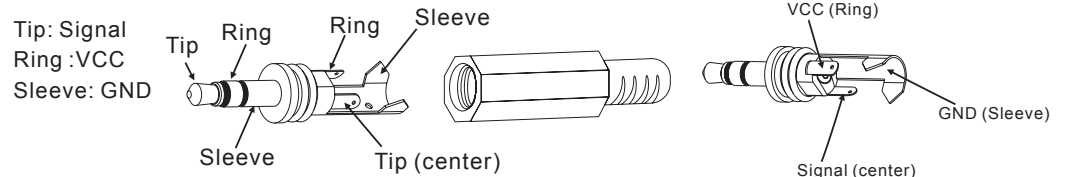
2. SB-100C IR 2M Receiver



The SB-100C IR Receiver will not function on the port "ALL in" Jack.

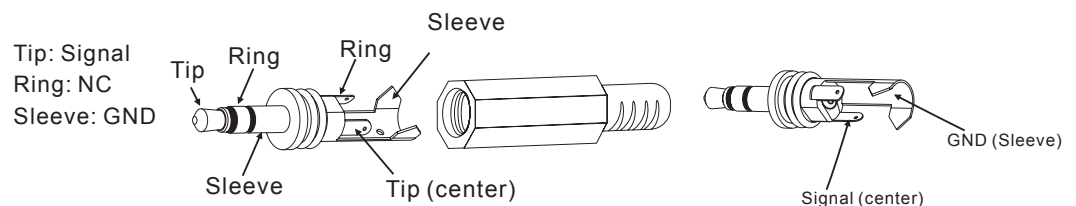
*** When you plug the External IR extender into the switcher, the front panel IR receiver remains active. ***

Pin configuration for IR 984 feet (300M) Extender Receiver such as SB-100 compatible



SB-100 Receiver and SB-101 Transmitter The DISTANCE maximum ~ 984 feet (300M)

Pin configuration for IR Receiver 6 feet (2M) cable such as SB-100C compatible



SB-100 Receiver and SB-101C Transmitter The DISTANCE maximum ~ 984 feet (300M)

Note: The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.

The frequency range of the IR emitter and receivers is 38khz.

INPUT & OUTPUT RESOLUTIONS

HDMI INPUT RESOLUTIONS

480i	576i	720p	1080p
480p	576p	1080i	

All of the above HDMI Input Resolutions work with the following HDMI Output Resolutions.

VGA 640x480	SVGA 800x600	480p 720x480	576p 720x576	720p 1080x720	1080i 1920x1080	1080p 1920x1080
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VGA INPUT & VIDEO-VGA-HDMI RESOLUTION

VGA	HDMI
VGA 640x480	480i
SVGA 800x600	720p
XGA 1024x768	1080i
SXGA 1280x1024	1080p
WXGA 1388x768	
WUXGA 1920x1200	

All of the above VGA & HDMI Output Resolutions work with the following VGA Input Resolutions.

SVGA 800x600	XGA 1024x768	XGA 1152x864	HD720 1280x768	WXGA 1280x768	WXGA 1280x800	SXGA 1280x960	SXGA 1280x1024	SXGA 1360x768	SXGA 1440x900
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HDMI (PC) INPUT RESOLUTIONS

640x480@60Hz	1280x768@60Hz	1400x1050@75Hz	1856x1392@75Hz
640x480@75Hz	1280x800@60Hz	1440x900@60Hz	1152x864@75Hz
800x600@60Hz	1280x800@75Hz	1440x900@75Hz	1920x1080@60Hz
800x600@75Hz	1280x960@60Hz	1600x1200@60Hz	1920x1200@75Hz
848x480@75Hz	1280x1024@60Hz	1600x1200@75Hz	832x624@75Hz
852x480@60Hz	1280x1024@75Hz	1680x1050@60Hz	1152x870@75Hz
1024x768@60Hz	1366x768@60Hz	1680x1050@75Hz	
1024x768@75Hz	1365x1024@60Hz	1792x1344@60Hz	
1152x864@75Hz	1400x788@60Hz	1792x1344@75Hz	
1280x720@60Hz	1400x1050@60Hz	1856x1392@60Hz	

All of the above PC Input Resolutions work with the following HDMI Output Resolutions.

VGA 640x480	SVGA 800x600	480p 720x480	576p 720x576	720p 1080x720	1080i 1920x1080	1080p 1920x1080
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