

**MTX-44-3D**  
**4x4 HDMI Matrix Switcher**  
INSTRUCTION MANUAL



**HDMI**<sup>™</sup>  
HIGH-DEFINITION MULTIMEDIA INTERFACE



## 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.

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## INTRODUCTION

The MTX-44-3D is professional 4x4 matrix routing switch. Supporting four (4) HDMI Inputs. Output supported (4) HDMI®. The MTX-44-3D is based on the HDMI® standard and supports full resolution HDMI Video with embedded EDID. With a signal bandwidth of 340Mhz, there is no signal degradation. High Definition Digital signals can be selected and distributed from any (4) Inputs to any (4) Outputs in any combination. The Switcher is certified as being fully CEC and HDCP® 2.0 compliant, full HD HDMI® V1.4a 3D formats, data rates up to 6.75 Gbps. Supports UXGA/WUXGA/DVI 1920x1200 resolution to any HD displays. The Switcher is certified as being fully HDMI® and HDCP® compliant, with RoHS, CE, FCC certification. Support high resolution HDMI® sources routed to HDMI® displays, monitors, projector or audio receivers. The EDID management can be selected between seven (7) different modes. Control is provided via Front panel push buttons, IR remote, RS-232 or TCP/IP (not a web-browser). An RS-232 Windows GUI interface is provided for matrix routing control (Windows only).

## PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- Main switch console unit
- Operating Instructions
- RS-232 V2.0 Protocol Instructions
- Ethernet V2.0 Protocol Instructions
- Master wireless IR Remote Control (SW-HD44)
- 19 inch Ear mount bracket (Part # 1U-440L)
- IR Receiver IR Extender distance ~984 ft (300M) Receiver set
- CD Contents : Windows GUI, ISP V1.0 Windows driver
- RS-232 Cable 6 ft (2M)
- ISO Screws
- Worldwide Universal Power Supply:  
DC12V, 3A, Input: (100~240 VAC, AC 50/60Hz)



## 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 & SPECIFICATIONS

## FEATURES

- 4x HDMI digital source devices matrix switched to 4x HDMI devices.
  - HDMI digital video w/embedded audio, DVI format and CEC/HDCP 2.0 compliant
  - Seven (7) function key control and worldwide EDID modes for HDTV resolutions.
  - Link speeds of up to 6.75 Gbps (link clock rate of 225MHz), Support HDMI 1.4a 3D formats.
  - Wide range of HD resolutions from PC XGA to WUXGA 1920x1200 and HDTV/DTV resolutions 480i/480p, 576i/576p, 720p, 1080i & 1080p
  - Compatible with all HDMI source devices, PC monitors, Plasma HD display, HDTV and audio receivers/amplifiers.
  - Digital Video TMDS formats Resolution up to 1080p-60 with Deep color 36-bit.
  - Digital Audio Support :
    - Dolby TrueHD, Dolby Digital, Dolby Digital Plug/ex
    - DTS, DTS-HD, DTS-HD Master, DTS-EX
    - PCM, PCM2, LPCM2
  - Various User Interface control:
    - Windows based GUI control via RS-232 port
    - Front Panel push button
    - IR wireless remote control
    - Third party RS-232 controller (via simple ASCII)
  - Support world wide control functions: ALL/OFF/RECALL/ENTER/MEMORY/EDID/LOCK
  - Support EDID modes :
    - Embedded EDID modes : FSS/H24-3D/H24-3D-M/H36-3D/H36-3D-M/DVI-D 1280x1024-60Hz/DVI-D 1920x1200-60Hz
    - External modes : Learning mode
  - Automatic scanning input & output status via LED show on front panel
  - Support IR Remote and IR Extender with distance up to ~ 984 ft (300M) Maximum
  - EDID configuration via Internal modes
  - Consumer Electronic Control (CEC) switch all open or OFF
- The Switcher will remember that last state during a power cycle. When power is removed and resorted, the last configuration will be invoked.

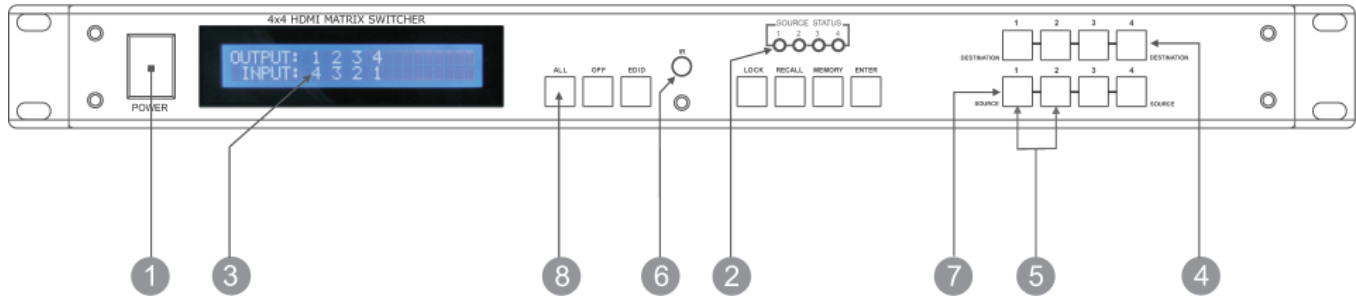
## SPECIFICATIONS

- **Type of Switcher:** 4x HDMI inputs To 4x HDMI Outputs Matrix Switcher
- **HDMI Support:** HD 1080p-@60Hz, H36-bit Deep color, 3D (1.4a) formats
- **HDCP / CEC Support:** HDCP 2.0 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 225MHz, Total 6.75Gbps bandwidth
- **Digital Video Support:** Full HD resolution : 480i / 480p / 720p / 1080i / 1080p
- **Video Input Interface:** Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6.1, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- **Controls:**
  - IR Remote Controller
  - IR External port x 1 (OD 3.5mm Ear phone Jack)
  - Select & Function buttons on front panel
  - RS-232 series interface
- **Source Status:** Automatically Scan Sources Inputs via LED
- **Function Control Key:** ALL / OFF / RECALL / ENTER / MEMORY / LOCK / EDID
- **Infrared Frequency:** 38 KHz
- **IR External Distance:** ~984 ft / 300 m maximum
- **HDMI I/O Connector:** HDMI Type A - SMD 19pin Female Type
- **Temperature:** 32 °F - 100 °F Operation (0 °C - 38 °C)
- **Dimensions (LxWxH):** 19 x 9.85 x 1.75 in (482 x 250 x 44mm)
- **Rack Mount:** 1RU High 19 in (with rack mount)
- **Power Supply:** DC12V / 3A, Universal world wide Type 50/60Hz, 100~230 VAC
- **Power Consumption:** 2150 mA Maximum
- **Safety Approvals:** CE, FCC, RoHS (2002/95/EC)
- **Product Weight:** 1.85 Kgs / 3.08 lb

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

# FRONT PANEL

## FRONT PANEL



### 1 POWER SWITCH

The power switch turns the unit on and off. The LED will illuminate red 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 INPUT STATUS DISPLAY

Input sources 1 to 4 LED illuminates blue to indicate that a video source is present on that input.

### 3 OUTPUT STATUS DISPLAY

Each Output (destination) Channel shows which input (source) is assigned.

### 4 DESTINATION SELECT BUTTONS

Separate outputs 1 thru 4 select buttons are provided for each destination assignment. Routing can be Source to Destination or one source to multiple destinations. Example : Press Destination 1, 2, 4 then press Source 2 will route Input 2 to Output 1, 2, 4 respectively.

### 5 EDID MODE SELECT BUTTONS

Used to select EDID mode using Input buttons #1 and #2.

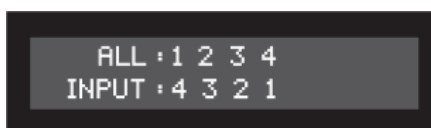
### 6 IR SENSOR

The IR sensor receives IR commands from the supplied remote controller or third party IR emitter.

### 7 SOURCE SELECT BUTTONS

Separate inputs 1 thru 4 select buttons are provided each source selection.

### 8 FUNCTION KEY - ALL



Disables (mute) video on all destinations OR Selects the same source to all destinations.

#### Option 1

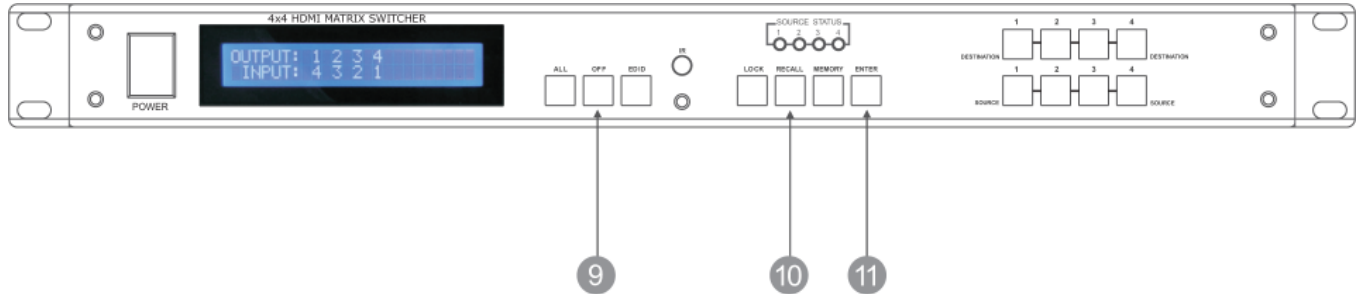
- Press **ALL** followed by **OFF** button. The display will show " 0 " indicating all destinations have no video selected.

#### Option 2

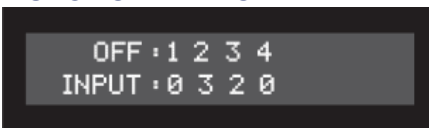
- Press **ALL** followed by Source 1 thru 4. The display will show the Source selected.  
- Press **ENTER**. The pre-set source selection will be assigned all destinations.

# FRONT PANEL

## FRONT PANEL



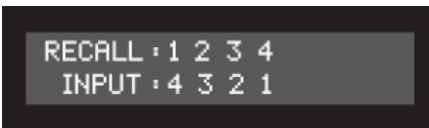
### 9 FUNCTION KEY - OFF



Disables (mute) video to selected channels. Either destinations.

- Press **OFF** button followed by any Destination channel.
- Press 1 thru 4 output destination. The display will show " 0 " for the selected channel indicating no video selected.

### 10 FUNCTION KEY - RECALL



The system will show previously stored presets, up to a total of 8.

Presets are stored in local memory using Source keys 1 thru 4 or Destination keys 1 thru 4 as the memory preset location.

- Configure desired matrices.
- Press **RECALL** button.
- Press 1 thru 4 on either Source or Destination row.
- Press **DEMO** The pre-set configuration will execute.

Operation completes.

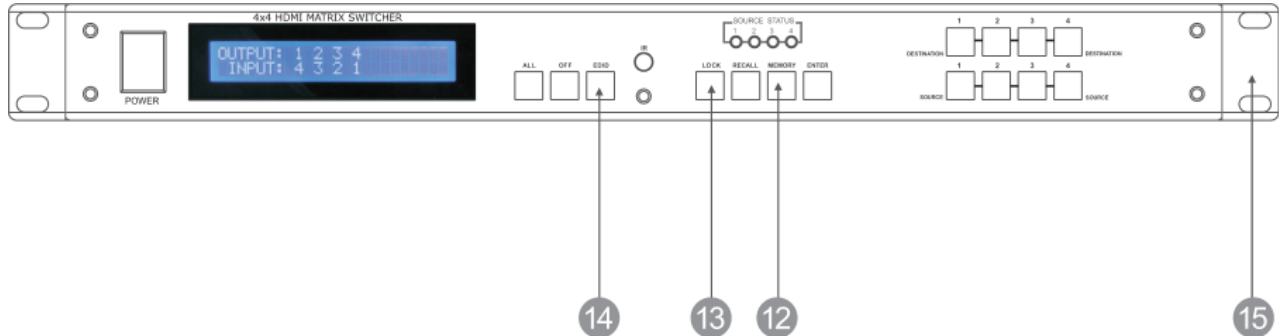
*Operation will abort if no keys are pressed with 5 seconds.*

### 11 FUNCTION KEY - ENTER

Press **ENTER** to confirm entries.

# FRONT PANEL

## FRONT PANEL



### 12 FUNCTION KEY - MEMORY

```
MEMORY: 1 2 3 4
INPUT : 4 3 2 1
```

The system will show store presets, up to a total of 8.

Presets are stored in local memory using Source keys 1 thru 4 or Destination keys 1 thru 4 as the memory preset location.

- Configure desired matrices..
- Press **MEMORY** button.
- Press 1 thru 4 on either Source or Destination row.
- Press **ENTER** to ready memory location.
- Or press **MEMORY** again to cancel operation.

Operation completes.

**Note : Operation will abort if no keys are pressed within 5 seconds.**

### 13 FUNCTION KEY - LOCK

- Press and hold **LOCK** button for two seconds lockout the front panel.
- Press and hold **LOCK** button for two seconds to enable the front panel.

### 14 FUNCTION KEY - EDID

```
DES.Keys : Learning
SRC.#1#2 : Mode Select
```

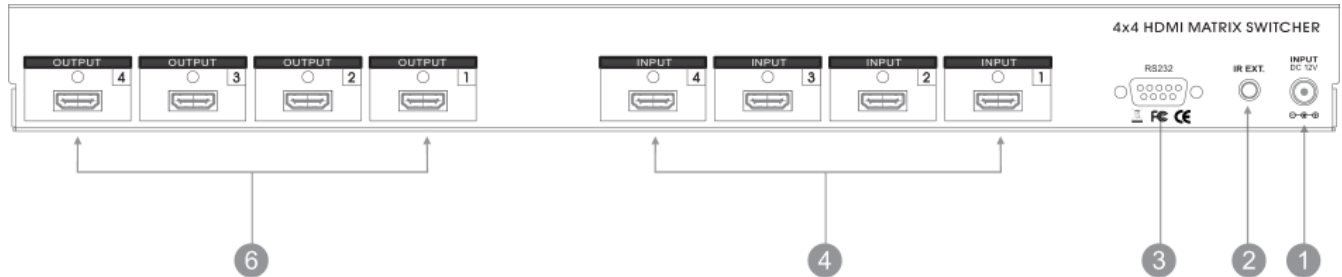
- Press **EDID** to select new EDID mode or select destination row 1 thru 4 for LINK source EDID again.

### 15 19 INCH EAR MOUNT PAIR

Converts desktop to 19 inch rack mount. Bracket (part # 1 U-440L) INCLUDED.  
Image shows rack mount bracket attached.

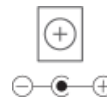
# REAR PANEL

## REAR PANEL



### 1 DC POWER INLET

The Switcher is fitted with a DC power plug input connector. Ensure that the used is of an approved type and is of sufficient current carrying connector capacity with the correct voltage and connector polarity. 12Volt DC power supply 3A Max (Center pin positive).



#### Power Jack:

DC Jack - Inner OD  $\varnothing$  2.1mm (+)  
Outside OD  $\varnothing$  5.5mm (GND)  
Power input - 12VDC, 3A

### 2 IR EXTENDER CONTROL

Support one of IR Extender. Extend distance maximum 300Meters / ~1000 feet. When you plug the External IR extender into the switcher, the front panel IR receiver remain active.



#### IR Extender Jack:

Female Jack - inner OD  $\varnothing$  3.5 mm

### 3 RS-232 CONNECTION

RS-232 control port to allow for interfacing to a PC a computer or touch panel control, to the switcher via this DB-9pin Female connector for serial RS-232 control.



#### Remote port :

DB-9pin Female connector

### 4 INPUTS- 1,2,3, & 4 HDMI

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources.



#### HDMI digital video/audio connector:

HDMI Female connector.

**Note:** With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. DVI does not support audio.

HDMI Digital Video/Audio, Connector with fix screw Input 1 ~ Input 4

### 5 OUTPUTS- 1,2,3, & 4 HDMI

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources.



#### HDMI digital video/audio connector:

HDMI Female connector.

**Note:** With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. DVI does not support audio.

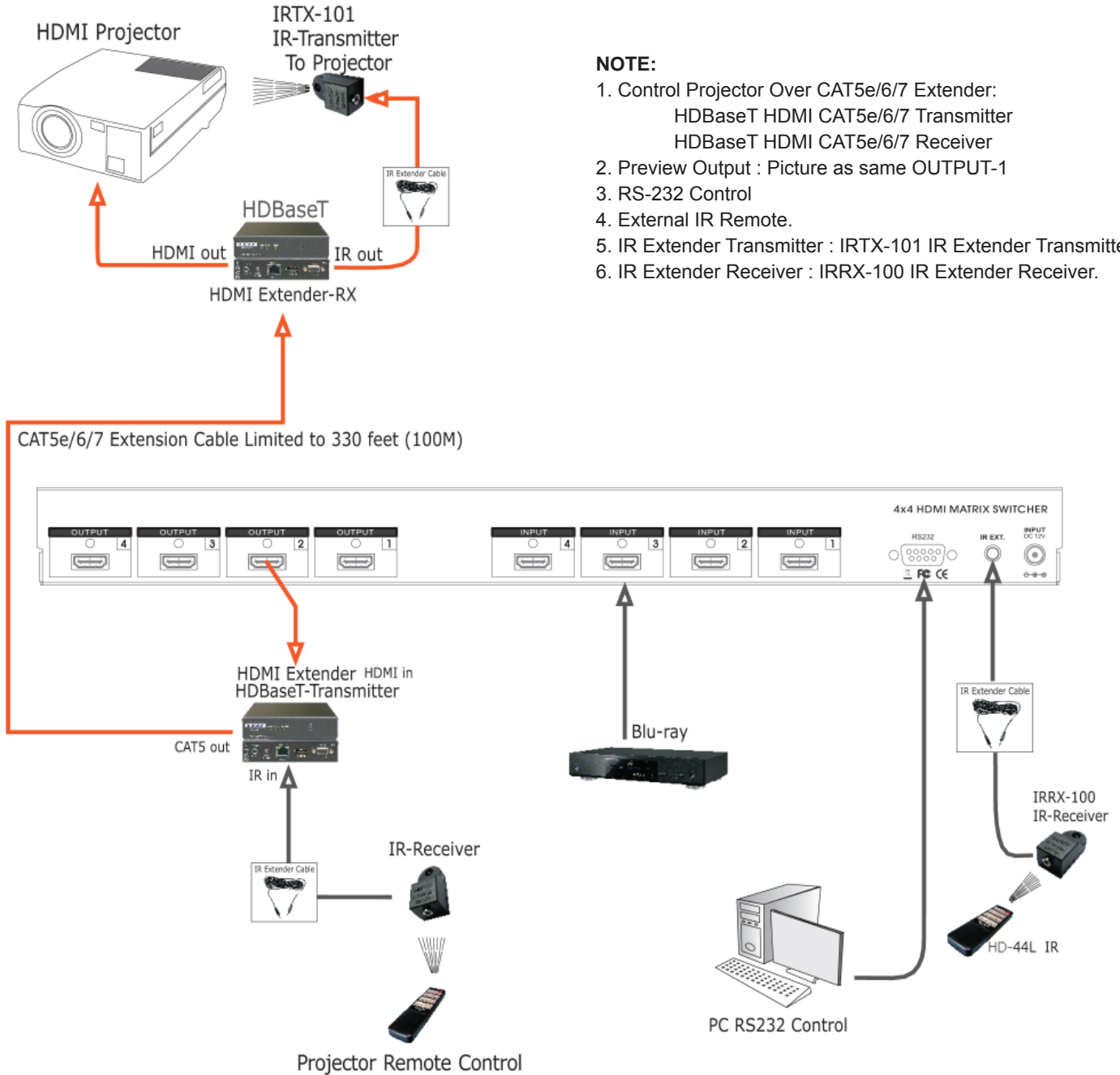
HDMI Digital Video/Audio, Connector with fix screw Output 1 ~ Output 4



# TYPICAL APPLICATION

## INSTALLING DIAGRAM

Sample connection using RS-232 serial interface or IR External in to control switch (MTX-44-3D).



**NOTE:**

1. Control Projector Over CAT5e/6/7 Extender:  
HDBaseT HDMI CAT5e/6/7 Transmitter  
HDBaseT HDMI CAT5e/6/7 Receiver
2. Preview Output : Picture as same OUTPUT-1
3. RS-232 Control
4. External IR Remote.
5. IR Extender Transmitter : IRTX-101 IR Extender Transmitter.
6. IR Extender Receiver : IRRX-100 IR Extender Receiver.

Support HDBaseT Extender by HDBaseT Transmitter and Receiver via CAT5e/6/7 cable

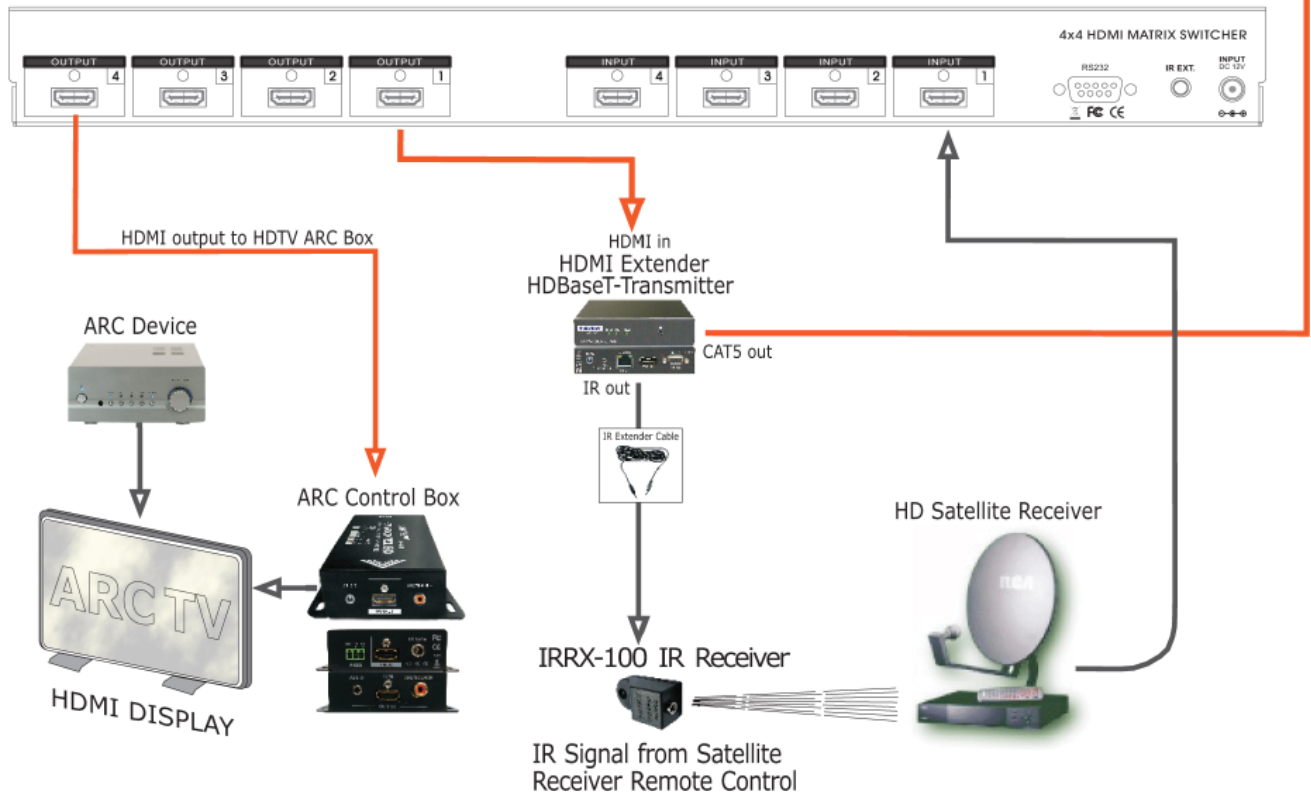
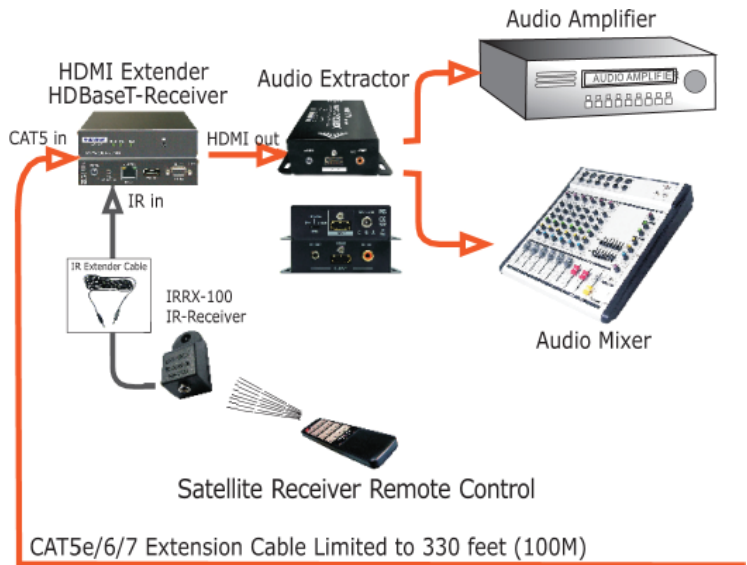
# TYPICAL APPLICATION

## INSTALLING DIAGRAM

Sample connection using Audio Extractor and ARC Control Box link TV Return Audio to Audio Device, Control a Satellite Receiver source via HDBaseT Transmitter and HDBaseT Receiver.

**NOTE:**

1. Control Satellite Receiver Over HDMI CAT5e/6/7 Extender from room:
  - HDBaseT HDMI CAT5e/6/7 Transmitter
  - HDBaseT HDMI CAT5e/6/7 Receiver
2. Audio Extractor To Recode Audio :
  - HDMI Audio Extractor.
3. Control HDMI ARC:
  - HDTV ARC Control Box.
4. IR Extender Transmitter :
  - IRTX-101: IR Extender Transmitter.
5. IR Extender Receiver :
  - IRRX-100: IR Extender Receiver.



Support HDBaseT Extender by HDBaseT Transmitter and HDBaseT Receiver via CAT5e/6/7 cable

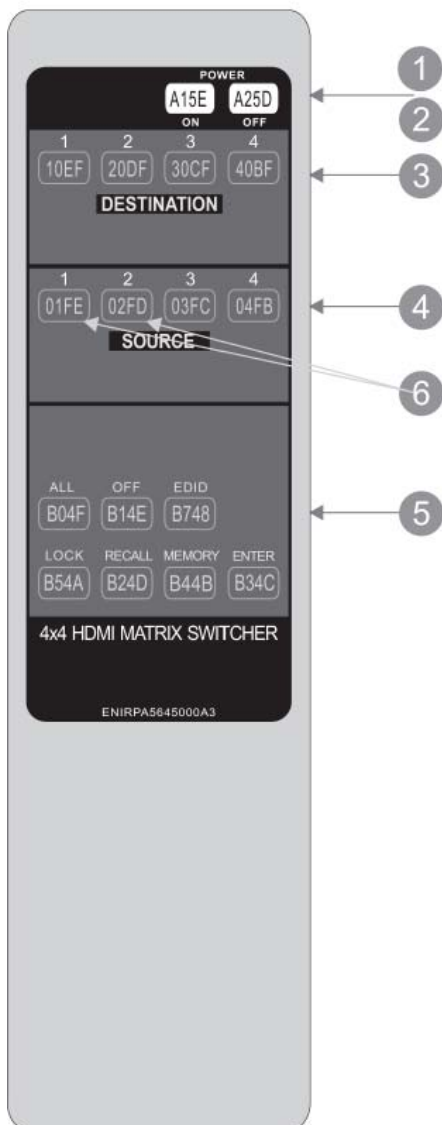
# REMOTE CONTROL

Before making any connections to the switcher. Observe the following:

- > Ensure the mains 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
- > For each destination output select the appropriate input source by using the front panel input 1~4 select buttons. The supplied IR remote control. Or through the RS-232 serial communications port.
- > Upon power up the switcher will return to its last used setting before powered down.

## IR REMOTE CONTROL KEY

IR REMOTE : SW-HD44



- 1 2 SWITCH POWER ON or OFF**  
Controller with a separate power ON and OFF
- 3 DESTINATION : 1 thru 4 OUTPUT SELECTION**  
Press the destination button to select the output display channel.
- 4 SOURCE : 1 thru 4 INPUT SOURCE SELECTION**  
Press input 1~ 4 sources with selection button
- 5 FUNCTION KEY**  
ALL - function selection button  
DEMO or ENTER - function selection button  
EDID - function selection button  
LOCK - function selection button
- 6 SELECT EDID MODES : Press source button 1 thru 2.**
  1. Mode 1 : FSS (Fast Speed Start )
  2. Mode 2 : H24-3D
  3. Mode 3 : H24M-3D
  4. Mode 4 : H36
  5. Mode 5 : H36M
  6. Mode 6 : H36-3D
  7. Mode 7 : H36M-3D

# REMOTE CONTROL

## IR REMOTE CUSTOM AND DATA CODES (NEC STANDARD)

### HOW TO SETUP IR CODES :

Model number : MTX-44-3D  
CUSTOM CODE : 837C

POWER ON : 837C A15E  
POWER OFF : 837C A25D

ALL : 837C B04F  
OFF : 837C B14E  
EDID : 837C B748  
LOCK : 837C B54A  
RECALL : 837C B24D  
MEMORY : 837C B44B  
ENTER : 837C B34C

PRESS TV DESTINATION - # then PRESS AV SOURCE - #

DESTINATION #1 : 837C 10EF	SOURCE #1 : 837C 01FE
DESTINATION #2 : 837C 20DF	SOURCE #2 : 837C 02FD
DESTINATION #3 : 837C 30CF	SOURCE #3 : 837C 03FC
DESTINATION #4 : 837C 40BF	SOURCE #4 : 837C 04FB

For example;  
Select Destination # 1 to show Source #1~4,

The IR Data Code list :

Destination # 1 , Source #1	837C 10EF	837C 01FE
Destination # 1 , Source #2	837C 10EF	837C 02FD
Destination # 1 , Source #3	837C 10EF	837C 03FC
Destination # 1 , Source #4	837C 10EF	837C 04FB

### Press EDID Mode key :

Mode 1 : FSS	837C E01F
Mode 2 : H24-3D	837C E11E
Mode 3 : H24M-3D	837C E21D
Mode 4 : H36	837C E31C
Mode 5 : H36M	837C E41B
Mode 6 : H36-3D	837C E51A
Mode 7 : H36M-3D	837C E619

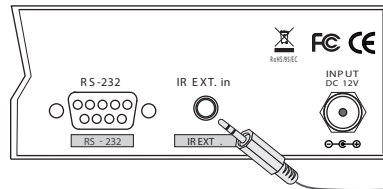
# IR EXTENDER

## IR RECEIVER:

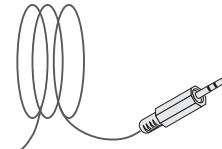
### 1. SB-100 IR 300M Receiver



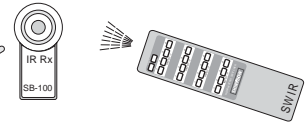
Device



Cable (3C)



IR Receiver (SB-100)

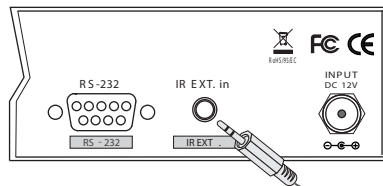


SB-100 Maximum Distance ~ 984 feet (300 meters)

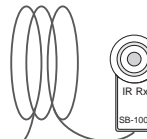
### 2. SB-100C IR 2M Receiver



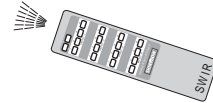
Device



Cable (3C)



IR Receiver (SB-100C)



SB-100C Maximum Distance ~ 6 feet (2 meters)

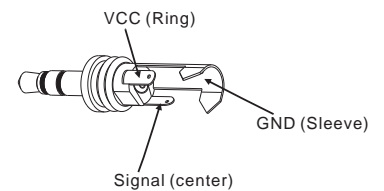
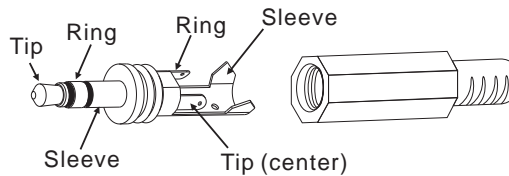
\*\*\* When you plug the External IR extender into the switcher, the front panel IR receiver remains active. \*\*\*

## PIN CONFIGURATION:

### SB-100 and SB-100C Receiver Pin configuration



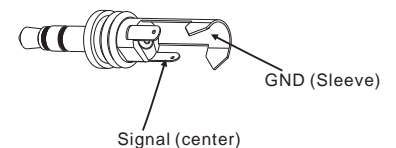
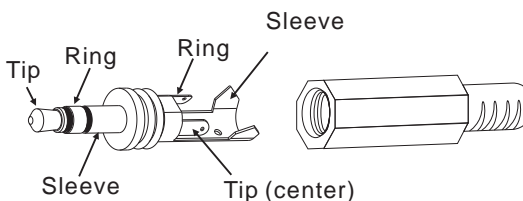
Tip: Signal  
Ring :VCC  
Sleeve: GND



SB-100 Maximum Distance ~ 984 feet (300 meters)



Tip: Signal  
Ring: NC  
Sleeve: GND



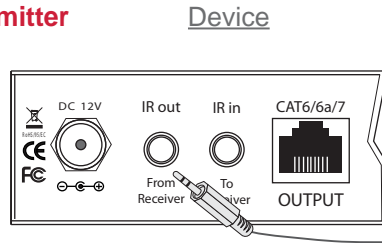
SB-100C Maximum Distance ~ 6 feet (2 meters)

**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.

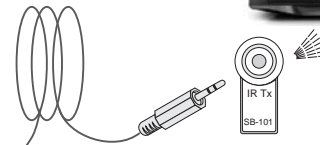
# IR EXTENDER

## IR EMITTER:

### 1. SB-101 IR 300M Transmitter



Cable (3C)

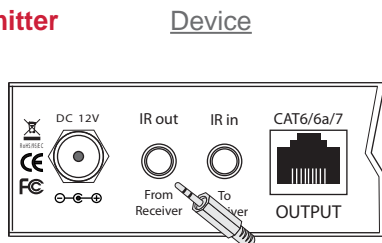


IR Transmitter (SB-101)

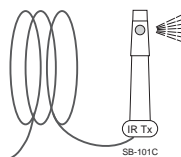


SB-101 Maximum Distance ~ 984 feet (300 meters)

### 2. SB-101C IR 2M Transmitter



Cable (3C)



IR Transmitter (SB-101C)



SB-101C Maximum Distance ~ 6 feet (2 meters)

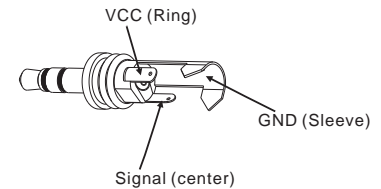
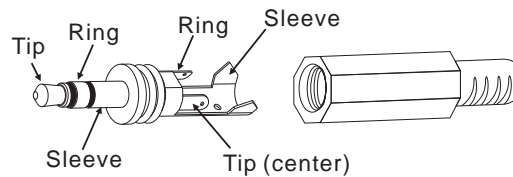
\*\*\* When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. \*\*\*

## PIN CONFIGURATION:

### SB-101 and SB-101C Transmitter Pin configuration



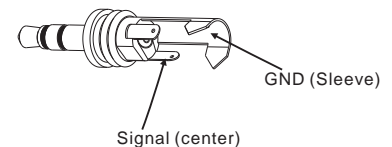
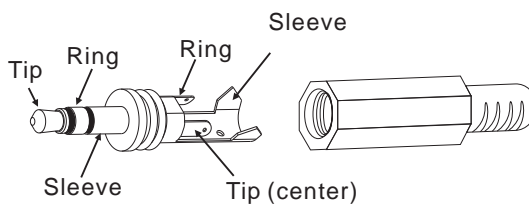
Tip: Signal  
Ring :VCC  
Sleeve: GND



SB-101 Maximum Distance ~ 984 feet (300 meters)



Tip: Signal  
Ring: NC  
Sleeve: GND



SB-101C Maximum Distance ~ 6 feet (2 meters)

**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.

# EDID FUNCTION

## EDID FUNCTION SETUP

EDID setup	To change the EDID setup
<b>Step 1.</b> Press the <b>EDID</b> button	The display will show the currently selected EDID mode
<b>Step 2.</b> Press <b>SOURCE #1</b> or <b>#2</b> button row	The button will flash blue and the display will show the current <b>Embedded EDID</b> Status.
<b>Step 3.</b> Press the <b>ENTER</b> button	To set <b>EDID</b> mode. The switcher will return to operation mode.
Operation will abort if no keys are pressed within 5 seconds.	

Embedded EDID modes	Total 7 EDID Modes
<p style="text-align: center;"><b>Embedded EDID setup</b></p> <p>Press <b>EDID</b> &gt; <b>SOURCE</b> &gt; <b>ENTER</b></p> <p style="text-align: center;">SOURCE #1 or SOURCE #2</p>	<p>To select <b>Embedded EDID</b> mode or <b>LEARNING</b> mode</p> <p>Press <b>EDID</b> button : The LCM will show the current EDID status.</p> <div style="border: 2px solid black; padding: 5px; text-align: center;"> <p>EDID : 2. H24-3D, PCM 2CH</p> </div> <p>Repeatedly depressing the <b>source 1</b> button will cycle <b>up</b> thru the options. Repeatedly depressing the <b>source 2</b> button will cycle <b>down</b> thru the options.</p> <p>Select <b>Embedded EDID</b> :</p> <p>Mode 1 : <b>FSS</b> Mode 2 : <b>H24-3D</b> Mode 3 : <b>H24-3D-M</b> Mode 4 : <b>H36-3D</b> Mode 5 : <b>H36-3D-M</b> Mode 6 : <b>DVI-D 1280x1024-60Hz</b> Mode 7 : <b>DVI-D 1920x1200-60Hz</b></p>

RESET	EDID Return To Factory default
<p style="text-align: center;"><b>How to RESET EDID mode</b></p> <p>Press <b>EDID</b> &gt; <b>RECALL</b> &gt; <b>ENTER</b></p>	<p><b>RESET</b> To the <b>FACTORY DEFAULT</b> (1080p-2CH).</p> <p>Press <b>EDID</b> button : The LCM will show the current EDID status.</p> <p>Press <b>RECALL</b> button : The LCM will show the <b>RESET EDID</b>.</p> <div style="border: 2px solid black; padding: 5px; text-align: center;"> <p>EDID : RESET EDID</p> </div> <p>Press <b>ENTER</b> to confirm entries. The EDID will return to <b>FSS</b> mode and resolution 1080p-2CH.</p> <div style="border: 2px solid black; padding: 5px; text-align: center;"> <p>EDID : 1. FAST SPEED START</p> </div>

LEARNING EDID	Learning EDID from Destination to Source
<p style="text-align: center;"><b>Learning EDID setup</b></p> <p>Press</p> <p><b>EDID</b> &gt; <b>DESTINATION</b> &gt; <b>SOURCE</b> &gt; <b>ENTER</b></p>	<p>Press <b>EDID</b> &gt;</p> <p>Switcher will <b>LEARN</b> destination EDID and pass the selected source.</p> <div style="border: 2px solid black; padding: 5px; text-align: center;"> <p>DES.Keys → Learning SRC.# 1#2 → Mode Select</p> </div>

# EDID FUNCTION

Press **EDID** > **DESTINATION** Button. The LCM will be show **LEARNING**.

LEARNING MODE → TX1  
COPY TO

Switcher will **LEARN** destination EDID and pass the selected source.

NOTE : The already learned EDID cannot be modified. You can only rebuild a new Learning EDID.

For example: When the Source has “Learned” the EDID data from a destination, It will save that EDID information into EPROM and the EDID data cannot change. Please select new learning destination to sources or change to one of the embedded EDID modes when you want to remove the learning EDID memory from EPROM.

## EDID function : 7x Embedded EDID Modes

### Mode 1. FSS® (Fast Speed Start)

EDID :  
1. FAST SPEED START

**Fast Speed Start** mode shortens the startup time of the switcher. Selecting this mode does not force the EDID setup to be cancelled. Users may first select one EDID mode from mode 2 to 3, and then select mode 1 for fast speed start.

### Mode 2. H24-3D (1080p-24 bits)

EDID :  
2. H24-3D, PCM 2CH

Video Support : All resolutions up to and including 1080p.

Audio Support : PCM 2CH

### Mode 3. H24-3D-M (1080p-24bits)

EDID :  
3. H24-3D, MULTI AUDIO

Video Support : All resolutions up to and including 1080p.

Audio Support : MAT(MLP) 7.1CH, PCM 2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS 5.1CH, PCM 7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH

### Mode 4. H36-3D (1080p-36 bits)

EDID :  
4. H36-3D, PCM2CH

Video Support : All resolutions up to and including 1080p.

Audio Support : PCM 2CH

### Mode 5. H36-3D-M (1080p-36 bits)

EDID :  
5. H36-3D, MULTI AUDIO

Video Support : All resolutions up to and including 1080p.

Audio Support : MAT(MLP) 7.1CH, PCM 2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS 5.1CH, PCM 7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH

### Mode 6. 1280x1024-60Hz (DVI-D)

EDID :  
6. 1280x1024-60HZ DVI-D

DVI Support : DVI-D 1280x1024 60Hz

### Mode 7. 1920x1200-60Hz (DVI-D)

EDID :  
7. 1920x1200-60HZ DVI-D

DVI Support : DVI-D 1920 x 1200 60Hz



# EDID FUNCTION

## EDID FUNCTION : LEARNING

Learning EDID Single to Single	Example : Learn Destination #4 EDID To Source #3.
<b>Step 1.</b> Press the <b>EDID</b> button	The button will flash blue and the display will show the current <b>Embedded EDID</b> Status.
<b>Step 2.</b> Press the Destination #4 button row	Copy the Destination #4 Display EDID.
<b>Step 3.</b> Press the Source #3 button row	Learning the Destination #4 EDID To Source # 3.
<b>Step 4.</b> Press <b>ENTER</b> button	To confirm entries.
Learning EDID Single to multiple	Learning destination EDID link to the majority Sources
<b>Step 1.</b> Press the <b>EDID</b> button	The button will flash blue and the display will show the current <b>Embedded EDID</b> Status.
<b>Step 2.</b> Press the Destinations #1~4 button row	Copy any 1~4 Destinations EDID.
<b>Step 3.</b> Press the Source #1, #3, #4 button row	Learning the Destination EDID link to source #1, #3, #4.
<b>Step 4.</b> Press <b>ENTER</b> button	To confirm entries.
Learning EDID Single to ALL	Learning destination EDID link to All Sources
<b>Step 1.</b> Press the <b>EDID</b> button	The button will flash blue and the display will show the current <b>Embedded EDID</b> Status.
<b>Step 2.</b> Press destination button 1 thru 4	Learning anyone 1~4 Destination EDID to all sources.
<b>Step 3.</b> Press <b>ALL</b> button	Learning selected destination EDID to all sources.
<b>Step 4.</b> Press <b>ENTER</b> button	To confirm entries.

## EDID FUNCTION FOR HDMI MATRIX SWITCHER

EDID status	To view the current EDID status.
<b>Step 1.</b> Press the <b>EDID</b> button	The button will flash blue and the display will show the current <b>Embedded EDID</b> Status.
<b>Step 2.</b> Press the <b>EDID</b> button	To exit.
How to setup FSS <sup>®</sup> Function	Fast speed start <sup>®</sup>
<b>Step 1.</b> Press the Destination #1~4 button row Then Press the Source #1~4 button row	To setup and Install all devices.
<b>Step 2.</b> Press the <b>EDID</b> button	Select a optimum status of <b>Embedded EDID</b> mode.
<b>Step 3.</b> Press <b>ENTER</b> button	To conform entries.
<b>Step 4.</b> Press the <b>EDID</b> button	To select the EDID <b>FSS<sup>®</sup></b> mode.
<b>Step 5.</b> Press <b>ENTER</b> button	To conform entries.
LEARNING EDID definition	Learning EDID from Destination to Source

1. Switcher will **LEARN** destination EDID and pass the selected source.
2. To set up learning between a single destination and single source:  
Press **EDID** button > Press **Destination** 1 thru 4 > Press Source 1 thru 4 > Press **ENTER** to confirm.  
Switcher will learn destination EDID to source device.
3. To set up learning between a single destination and Multiple sources:  
Press **EDID** button > Press **Destination** 1 thru 4 > Press the majority Sources 1 thru 4 > Press **ENTER**.  
Switcher will learn single destination EDID to many source devices.
4. How to Learning single destinations with all sources. Press **EDID** button > Press **ALL** button > Press **ENTER** to confirm.

# RS-232 SERIAL INTERFACE

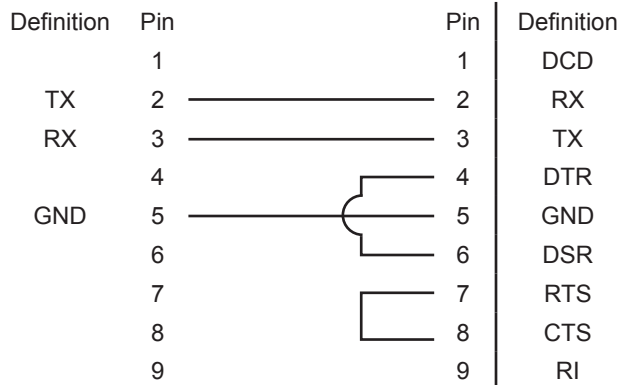
## RS-232 SERIAL INTERFACE CONNECT a PC or CONTROL SYSTEM. VERSION COMPATIBLE V1.0 & V1.5

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

### RS-232 Configuration

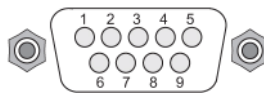
RS-232 cable is a straight thru cable and not null-modem

**MTX-44-3D  
Device**



**PC**

RS-232 Pin Diagram



## RS-232 SERIAL INTERFACE PROTOCOL COMMANDS ( Ethernet / RS-232 Control driver V2.0 )

The MTX-44-3D switcher can be controlled via the RS-232 serial control port to allow for interfacing to a PC, or similar third party control system.

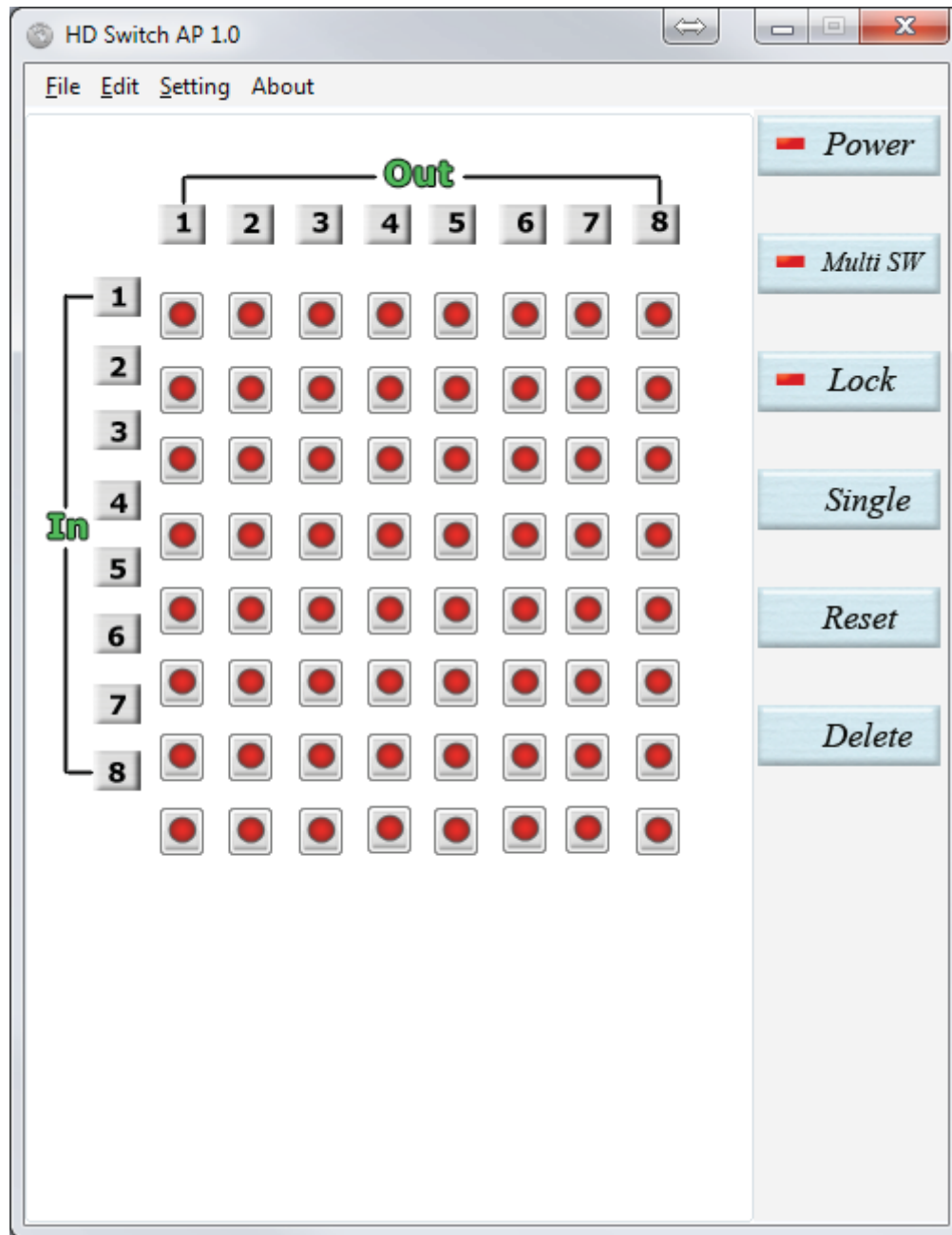
The serial communication parameters are 9600 baud, 8 bit, No Parity and 1 stop bit - this is often referred to as 9600 8N1. When the unit recognizes a complete command it will perform the requested action - there is no delimiter character required.

# GUI INTERFACE



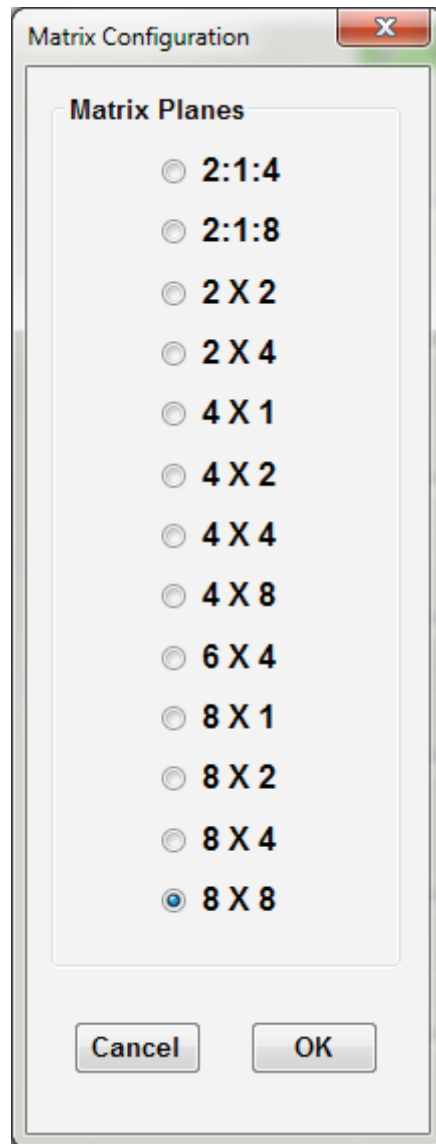
1A: Supports routing using Lines

# GUI INTERFACE



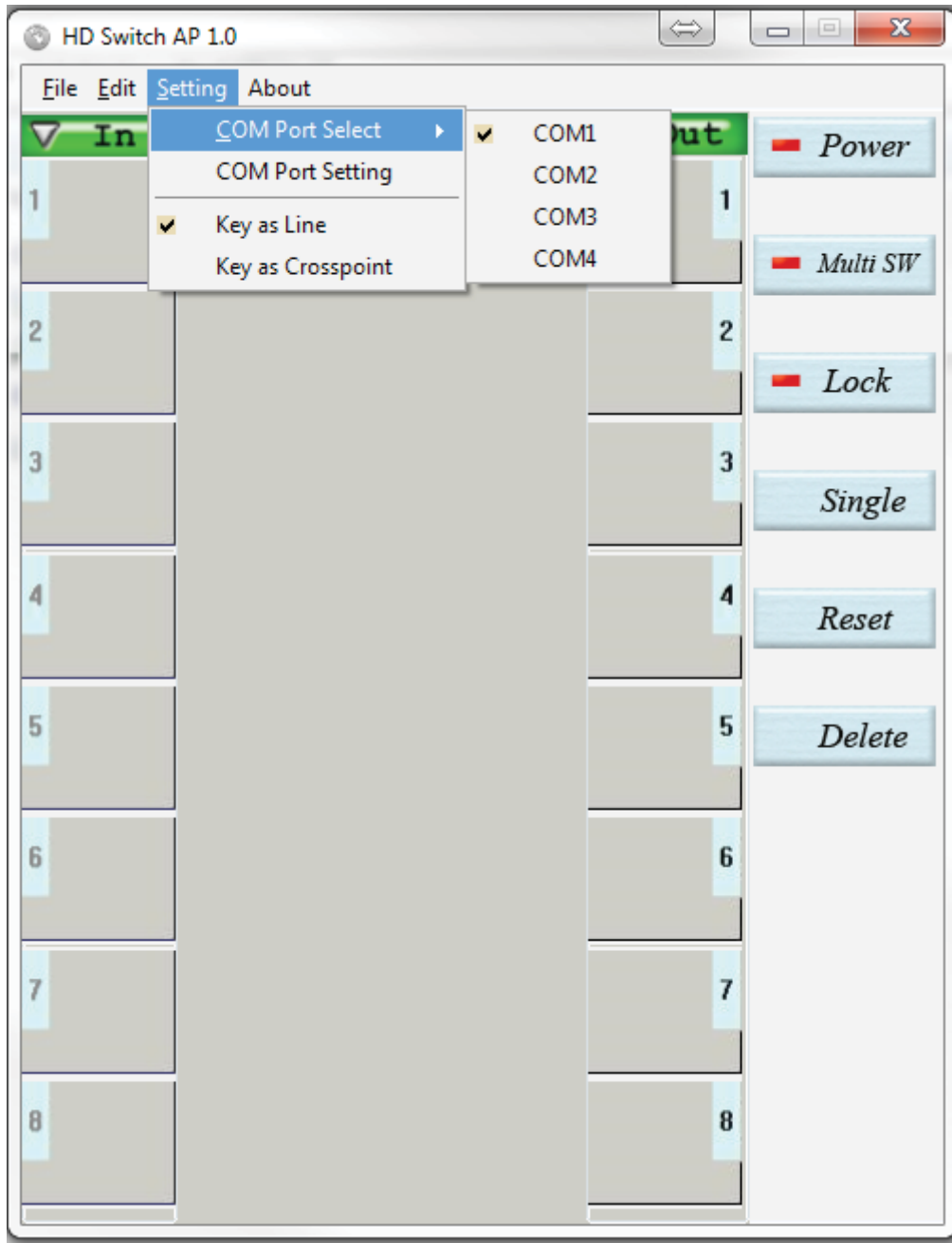
1B: Supports routing using Cross points

# GUI INTERFACE



2: Select different matrix sizes

# GUI INTERFACE



3: Support COM ports 1 thru 4

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