

OMX-12BTMX0001

4K HDBaseT Transceiver 1080p 70m 4K 40m

OPERATION MANUAL



INTRODUCTION

The Ocean Matrix OMX-12BTMX0001 is the perfect device for further extending your HDBaseT signal, while still supporting the highest quality of uncompressed 4K HD video over a single CAT5e/6 cable. The OMX-12BTMX0001 also features 3x HDMI outputs for sending video to local displays, and supports uncompressed multi-channel audio, EDID management, and bi-directional IR and RS-232 control.

APPLICATIONS

- Household entertainment sharing and Lecture room display and control
- Showroom display and control
- Meeting room presentation and control Classroom display and control
- Compatible with the OMX-01HMHM0002 receivers

PACKAGE CONTENTS

- ① Main unit
- ② Operating instructions
- ③ 24V1A Four countries DC power supply
- ④ 1x IR TX unit
- ⑤ 1x IR RX unit
- ⑥ 1x Phoenix plugs for RS232 cable termination
- ⑦ 1x USB AM to Micro 5P 0.8m cable
- ⑧ 2x Mounting Ears

SYSTEM REQUIREMENTS

- HDBaseT Transmitter
- HDBaseT Receivers for Connecting to the HDBaseT out via CAT5e/6/7
- Up to 3 HDMI Display (TV or Monitor)



Features

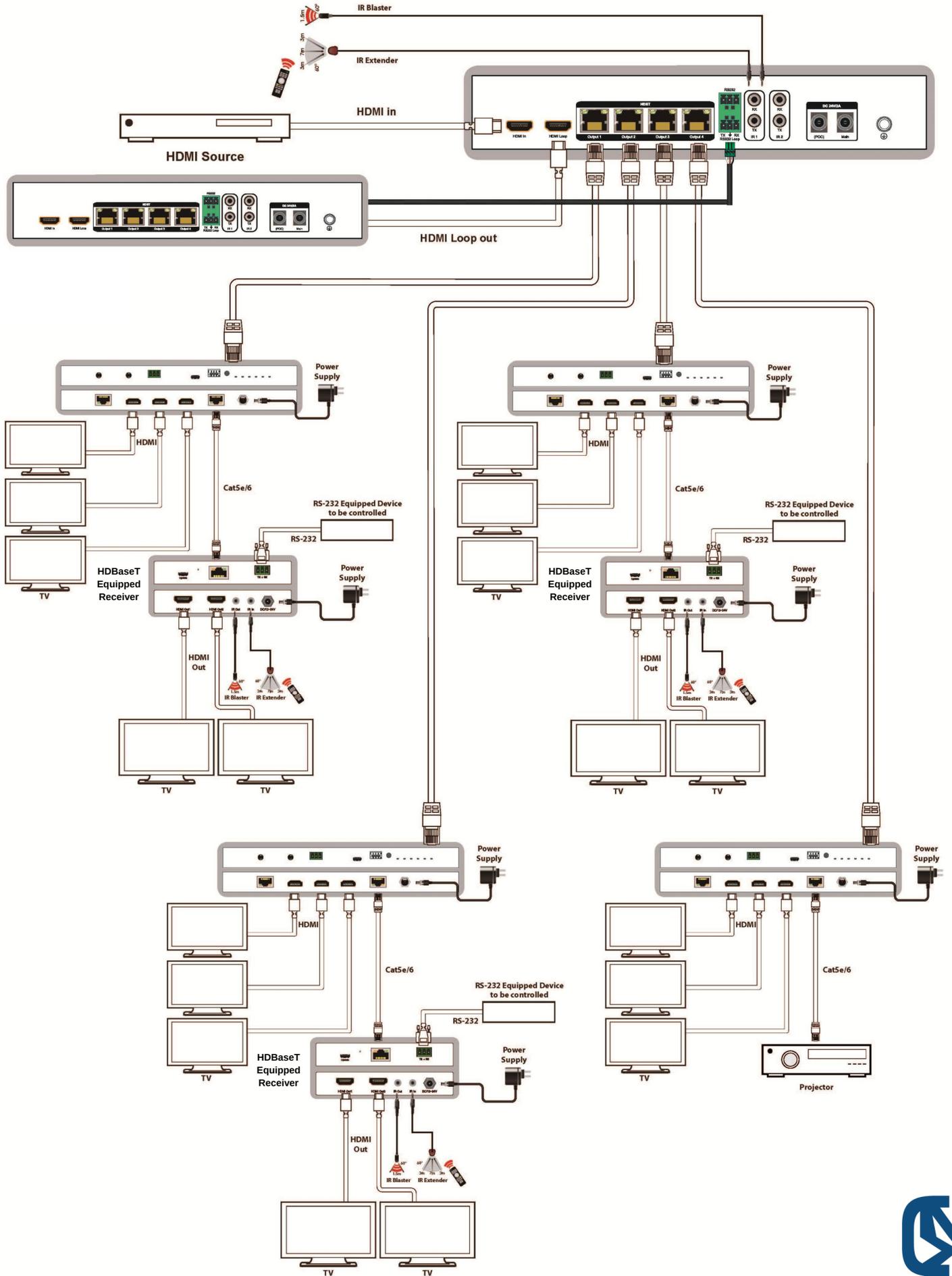
- HDMI 2.0 Bandwidth Up To 18Gbps
- Supports Resolutions Up To 4K @60hz YUV 4:4:4
- Transmits 4K Up To 40m, 1080p Up To 70m
- HDR10, 3D Support
- 1x HDBaseT In; 1x HDBaseT Out With 3x Looping HDMI Out
- Bi-Directional Wide Band IR and RS232 Pass Through
- Supports 7.1CH & Dolby True HD, DTS-HD Audio
- HDCP2.2/ HDCP1.4 Compliant
- Built-in EDID Management

Specifications

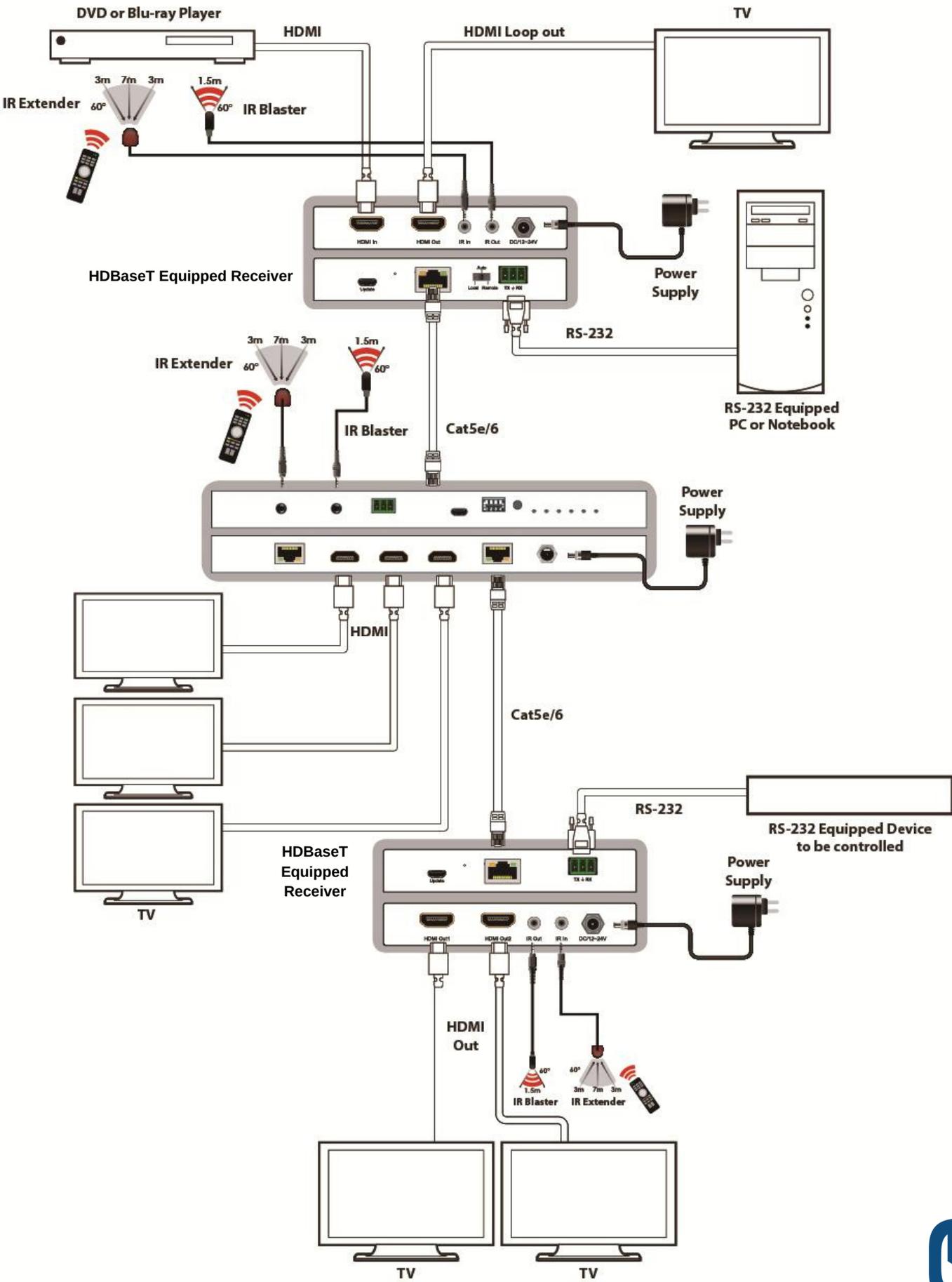
| | |
|-------------------------------|---|
| Operating Temperature Range | -10 to +55°C (14 to +131 °F) |
| Operating Humidity Range | 5 to 90 % RH (no condensation) |
| Input Video Signal | 0.5-1.0 volts p-p |
| Input DDC Signal | 5 volts p-p (TTL) |
| Video Format Supported | DTV/HD TV: 4K/1080P/1080i/720P/576P/480P/576i/480i |
| Output Video | UHDTV HDMI 2.0 + HDCP 2.2 |
| Output Audio | Support 7.1ch DTS-HD, Dolby-HD |
| Maximum Transmission Distance | 70 meters for 1080P, 40 meters for 4K |
| Supported Audio Rate | Up to 48Khz |
| Power Supply | 24 V1A |
| Power Consumption | 11 Watts |
| Dimensions | 9.6in (L) X 5.5in (W) X .9in (H) |
| Mass (Main unit) | 1.06Kg (2.3lbs) |



HDBaseT SPLITTER

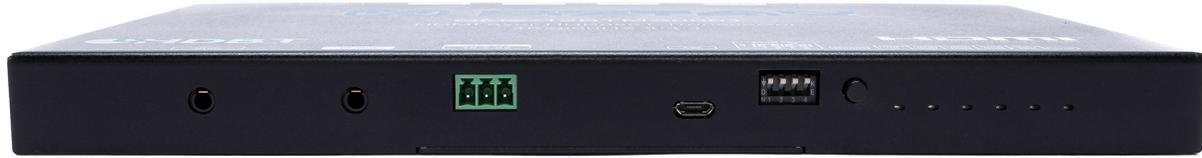


CONNECTION DIAGRAM



OPERATION CONTROLS AND FUNCTIONS

Front Panel:



1 2 3 4 5 6

- ① IR In: Connect the supplied IR Receiver cable for IR signal transmission. Place the IR blaster in direct line-of-sight of the equipment to be controlled.
- ② IR Out: Connect the supplied IR Emitter cable for IR signal transmission. Place the IR blaster in direct line of sight of the equipment to be controlled.
- ③ RS-232: Connect a PC or laptop with phoenix terminal for the transmission of RS232 commands.
- ④ Factory use only.
- ⑤ EDID: DIP switches 1 and 2 are for EDID setting adjustments. DIP Switches 3 and 4 are for RS-232 ID settings.
ID: Through a 4 PIN DIP Switch, Set the ID number on the 3rd and 4th bits. Upper means 0, Lower means 1.
- ⑥ RESET: press and release for EDID setting; press and hold power to reset the product.

Rear Panel



1 2 3 4 5 6

- ① DC/24V: Plug the 24V DC power supply into the unit and connect adaptor to an AC outlet
- ② HDBaseT Out: Connect to the receiver with a single CAT5e/6/7 cable
- ③ HDMI Out1: Connect to a HDMI equipped TV/Monitor
- ④ HDMI Out2: Connect to a HDMI equipped TV/Monitor
- ⑤ HDMI Out3: Connect to a HDMI equipped TV/Monitor
- ⑥ HDBaseT In: Connect to the transmitter with a single CAT5e/6/7 cable



Button instructions:

Pressing and releasing: Prompts three different EDID modes; Default EDID, Copy EDID and Priority mode

1). Default EDID mode: 4 different EDID types can be set according to the DIP switch. After setting, the HDBT IN indicator light will turn off and then return to normal operation.

| DIP Switch | EDID |
|------------|--------------------------|
| 00 | 4k60-4:4:4-2.0 (Default) |
| 01 | 4K60-4:4:4-5.1-HDR |
| 10 | 4K30-3D-2.0 |
| 11 | 1080p60-3D-2.0 |

2). Copy EDID mode: HDMI1, HDMI2, HDMI3 and HDBT Out can be copied according to the DIP switch. After setting, the HDBT IN indicator will slowly flash for 3 seconds and then return to normal operation.

| DIP Switch | EDID |
|------------|------------|
| 00 | HDBT Out |
| 01 | HDMI 1 Out |
| 10 | HDMI 2 Out |
| 11 | HDMI 3 Out |

3). Priority mode: Prioritizes HDMI outputs starting with HDMI 1, then HDMI 2, and HDMI 3. EDID will copy the highest priority and send that EDID data to the lower priority outputs. After setting, HDBT IN light will flash quickly then revert back to normal after 3 seconds.

Press and hold the reset / EDID button for about 3 seconds to restart the product. All the blue indicators will flash 3 times, and the TV will re-read the EDID.

Note: After setting the EDID mode, when indicator returns to normal, restart the product to get the EDID mode.



IR pass through instruction:

Two way IR pass through is only supported between Transmitter and Receiver units. Two way IR pass through between multiple repeaters is not supported.

RS-232 pass through instruction:

ID: Through a 4 PIN DIP Switch, Set the ID number on the 3rd and 4th bits. Upper means 0, Lower means 1. Then send the command to achieve RS-232 dual way transmission. The ID number corresponds to the following instruction table:

| | id% | baud=%d | |
|---------|-----------|-----------|--|
| | ID number | Baud rate | |
| #bypass | 0: all | 115200 | |
| | 1: ID 00 | 57600 | |
| | 2: ID 01 | 38400 | |
| | 3: ID 10 | 19200 | |
| | 4: ID 11 | 14400 | |
| | | 9600 | |
| | | 4800 | |
| | | 2400 | |

For example: Repeater's ID: 00; TX sends command to the Repeater, the command will be: #bypass id1 baud=115200 str=#down. Then the repeater will get "#down".

 When paired with different devices, the commands are slightly different.

MAINTENANCE

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

WARRANTY

1 Year



PRODUCT SERVICE

Damage requiring service:

The unit should be serviced by qualified service personnel if:

- (a) The DC power supply cord or AC adaptor has been damaged
 - (b) Objects or liquids have gotten into the unit
 - (c) The unit has been exposed to rain
 - (d) The unit does not operate normally or exhibits a marked change in performance; The unit has been dropped or the cabinet is damaged.
- (2) Servicing Personnel: Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- (3) Replacement parts: When parts need replacing ensure the servicer uses parts specified by the manufacturer. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- (4) Safety check: After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

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 the unit:

- 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

