

# CMIR-44

## 4 by 4 Infrared Matrix

### *Operation Manual*



CMIR-44

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## • **Safety Precautions**

Please read all instructions before attempting to unpack or 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 module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

## • **Revision History**

<u>Version No</u>	<u>Date</u>	<u>Summary of Change</u>
<b>V1</b>	<b>20100201</b>	<b>Preliminary Release</b>
<b>VR2</b>	<b>20101207</b>	<b>Adding IR Cable Distance</b>
<b>VR3</b>	<b>20120924</b>	<b>IR Frequency &amp; Remote Control</b>

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## **1. Introduction**

The Infrared 4 by 4 Matrix is designed to control your source devices from beside your display/receiver. Using the original remote, you can control DVD/Blu-ray players, satellite and set-top-boxes and with a cross matrix design this device gives the ability to send infrared signals from place to place. When used with an HDMI/converter matrix, this brilliant product will allow you to freely manage your sources and displays. Simply place the IR receiver near the display and put the IR blaster in a position so that all devices will be able to function properly, even when they are hidden in a cabinet or placed far away. So if your looking for a way to extend IR control over great distances, you have but one choice: The Infrared 4 by 4 Matrix

## **2. Applications**

- Control multiple sources
- System Control
- Showroom control

## **3. Package Contents**

- 4 by 4 Infrared Matrix
- Remote Control CR81-06F09 with battery
- 5V DC power adaptor
- Operation Manual
- 5xIR Receiver cables
- 5xIR Blaster cables

## **4. System Requirements**

Source equipment: Display/ TV/monitors and HDMI/video matrix box devices.

## **5. Features**

- Supports independent IR receiver and IR blaster selection and control
- This device does not send audio/video signals, it only transmits and receives infrared signals to control equipment that is far away, using IR extender cables.
- Supports a frequency of 30KHz ~ 50KHz.
- Use your existing remote controls.

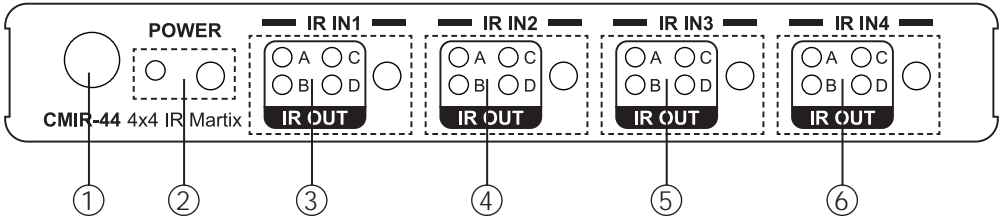
6. Specifications

IR Frequency	30KHz to 50KHz
Input port	4 x independent IR Blasters; 1 x total IR blaster control
Output port	4 x independent IR Receiver; 1 x total IR receiver control
Power Supply	5VDC/1A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: $\pm 8\text{kV}$ (air-gap discharge) $\pm 4\text{kV}$ (contact discharge)
Dimensions (mm)	180(W) x 124(D) x 25(H)
Weight(g)	450
Chassis Material	Aluminum
Silkscreen Color	Silver
Power Consumption	0.86W
Operating Temperature	0°C~40°C / 32°F ~ 104°F
Storage temperature	-20°C~60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

## 7. Hardware Description

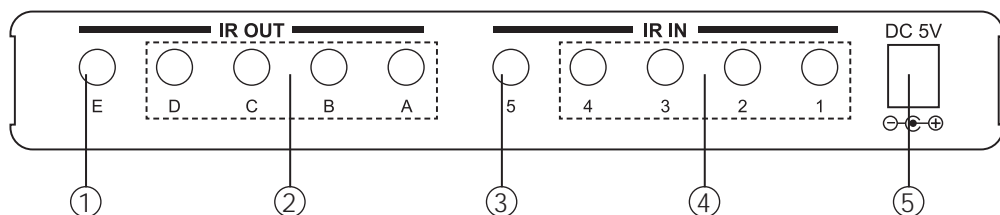
The following sections describe the hardware components of the unit.

### 7.1 Front Panel



- ① IR sensor: To control the system.
- ② POWER Button & LED: Press to turn the unit on or press it again to turn it to standby mode. When the system is on the LED will be green, when in STANDBY mode the LED will then be red.
- ③ IR IN 1 & output LED: Press the button to select which output IR signal will be sent, the LED will then illuminate according to the selection.
- ④ IR IN 2 & output LED: Press the button to select which output IR signal will be sent, the LED will then illuminate according to the selection.
- ⑤ IR IN 3 & output LED: Press the button to select which output IR signal will be sent, the LED will then illuminate according to the selection.
- ⑥ IR IN 4 & output LED: Press the button to select which output IR signal will be sent, the LED will then illuminate according to the selection.

## 7.2 Rear panel

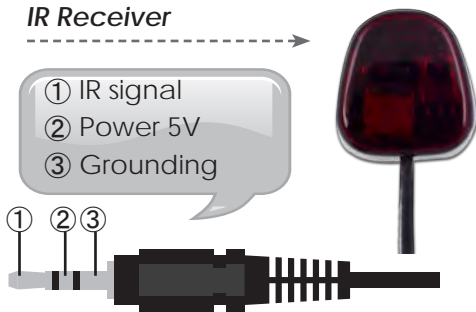


- ① IR OUT ALL: This slot is where you connect the IR blaster cable included in the package. Place the IR blaster in direct line-of-sight of the equipment to be controlled for it will blaster out all signal received from IR IN 1~4.
- ② IR OUT A~D: These slots are where you connect the IR blaster cables included in the package. Place the IR blaster in direct line-of-sight of the equipment to be controlled for it will blaster out the signal choosen by IR IN 1~4.
- ③ IR IN ALL: This slot is where you connect the IR receiver cable included in this package for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR receiver for it will send out the signal to IR out A~D.
- ④ IR IN 1~4: These slots are where you connect the IR receiver cables included in the package remote control. Ensure that remote being used is within the direct line-of-sight of the IR receiver for it will send out the signal to the selected IR out from A~D and IR OUT ALL.
- ⑤ DC 5V: Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

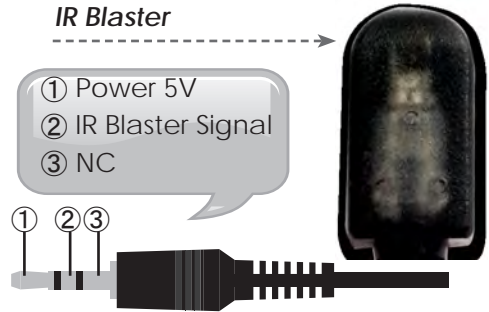


## 8. IR Cable Pin Definitions

### 8.1 IR Receiver



### 8.2 IR Blaster



**Note:** Both the IR Receiver & Blaster can support a frequency of 30~50KHz.

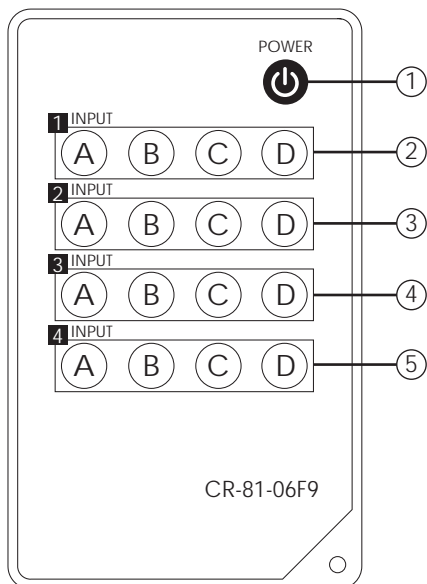
### 8.3 IR Functioning Chart

	IR OUT A	IR OUT B	IR OUT C	IR OUT D	IR OUT E
IR IN 1	⊙	⊙	⊙	⊙	▲
IR IN 2	⊙	⊙	⊙	⊙	▲
IR IN 3	⊙	⊙	⊙	⊙	▲
IR IN 4	⊙	⊙	⊙	⊙	▲
IR IN 5	△	△	△	△	△ ▲
IR Sensor	X				

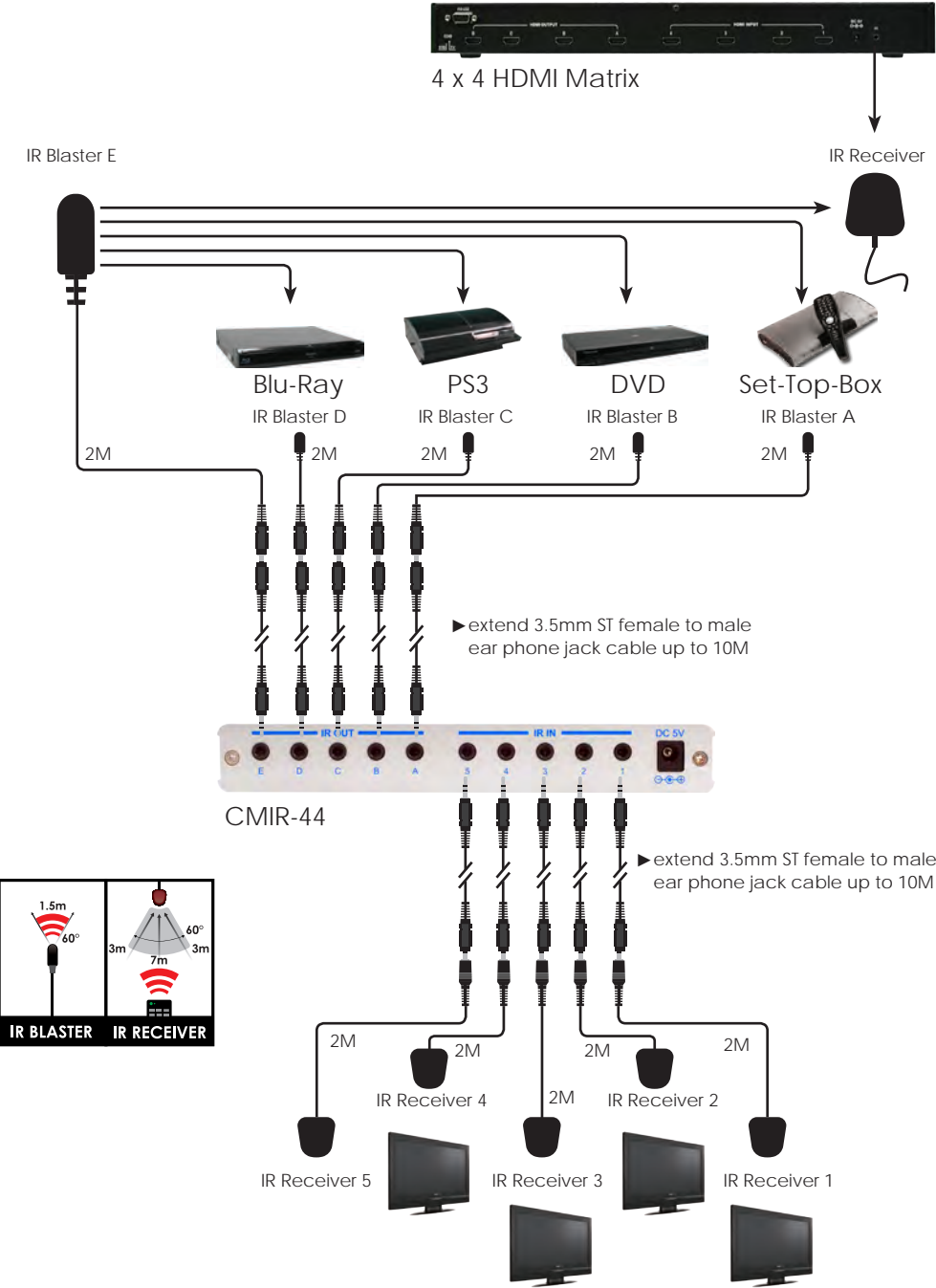
- ⊙: IR in can select IR out  
X: Only accepts an IR signal from the remote control included in this products package.  
△: You do not have to select IR input as this device can receive IR signals from all IR remote controls with a frequency between 30KHz~50 KHz  
▲: You do not have to select input IR as this device can send IR signals to all sources With a frequency between 30KHz~50 KHz

## 9. Remote Control

1. Power: Press the button to turn on/standby the unit.
2. IR input 1: Select for IR OUT A~D:  
Press A, B, C or D to select the desired IR out for sending a signal.
3. IR input 2: Select for IR OUT A~D:  
Press A, B, C or D to select the desired IR out for sending a signal.
4. IR input 3: Select for IR OUT A~D:  
Press A, B, C or D to select the desired IR out for sending a signal.
5. IR input 4: Select for IR OUT A~D:  
Press A, B, C or D to select the desired IR out for sending a signal.



10. Connection and Installation



# Acronyms

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## *Acronym*

IR

## *Complete Term*

Infrared

