

# Product Operation Manual

## MSHRC080W Network IP Camera



**Microseven Systems, Inc.**

Walnut, California 91789, USA



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Notes:

Please read the following label before connecting or operating the equipment.

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>Notes: Please not move the cover (or back) to reduce the danger of electric shock. No part inside can be repaired by users. Refer servicing to qualified personnel.</p>		



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of exposed wiring within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to people.

The serial number of this product can be found on the top of the unit. Please note the serial number of this unit in the space provide and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model: \_\_\_\_\_

Product Ne: \_\_\_\_\_

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## 1. Preface

MSHRC080W Network IP cameras adopts SONY CCD, with bright and exquisite images. As video & audio multi-media equipment that based on network transmission, which adopts built-in and multi-media communication technology, the camera is a multi-media network terminal that can directly connect to the network.

The camera adopts all-built-in technology, which can be connected to the TCP/IP network without any other equipment and realize the video & audio collection, code compression and transmission function. Outstanding H.264 compression code arithmetic guarantees the minimum occupation of bandwidth, and built-in Web Server enables users to visit the IP camera through IE or special surveillance management software.

Furthermore, the camera adopts big body design and built-in fans, which not only makes it have good appearance, but also guarantees the reliable running of the camera.

## 2. Key Features

- Minimum Illumination:  
Color : 0.5 Lux  
B&W : 0 Lux
- Horizontal resolutions: 480TVL
- H.264 compression format can optimize the image quality and the bandwidth occupation.
- Built in web server, can be viewed directly by IE
- Image capture
- Email and FTP network linkage alarm.
- Can be equipped with wireless transmission module to provide IEEE 802.11b/g standard wireless transmission, and to improve the flexibility of installation.

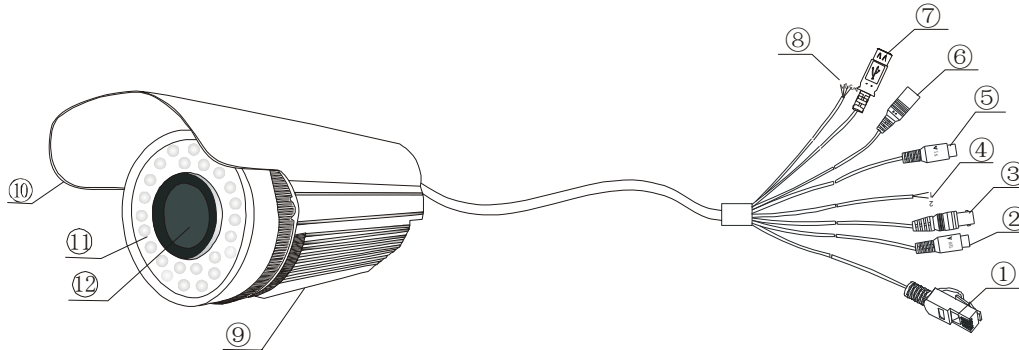
### Other Features

- Powerful software function: provide network video server hardware and total software solution.
- Unique video decoding function: can decode the data package of network camera to composite video signal, and display it on monitors.
- Flexible visit mode: one end to multi-end, multi-end to one end.
- Adopt high quality IR LED, night vision distance reaches up to 40m.
- Motion detection alarm, I/O status alarm and LOGO update alarm function, with 12x16 detecting areas & 9 level sensitivity ;When the moving objects are discovered in set areas, an alarm signal will be transmitted to appointed client-end through network, image capturing & recording or other relevant actions can be set.
- Built in multi network protocol: Support TCP/IP protocol, allow data sending and receiving by WAN or LAN.
- Built-in Linux operation system.

### 3. Notes

- A. Do not attempt to disassemble the camera yourself.  
To prevent electric shock, do not remove screws or covers. No part inside can be repaired by users. Ask a qualified service person for serving.
- B. Handle the camera with care.  
Avoid striking or shaking. The camera could be damaged by improper handling or storage.
- C. Wireless model does not support waterproof.
- D. Do not use strong or abrasive detergents when cleaning the camera body. Use a dry soft cloth to clean the camera when dirty. In case the dirt is hard to remove, use a mild detergent and wipe gently.
- E. Never face the camera towards the sun.  
Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other very bright objects. Otherwise, blooming or smear maybe caused.
- F. Do not operate the camera beyond the specified temperature, humidity or power source.  
Use the camera under conditions where temperature is between  $-10^{\circ}$  -  $+ 50^{\circ}$  and humidity is below 90%.
- G. The power supply for MSHRC080W is DC12V.  
The adapter with electric current of over 2A is recommended.

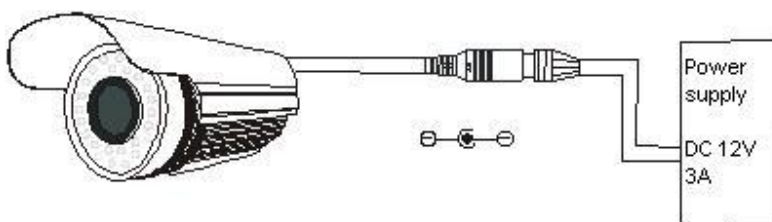
## 4. Instructions for Main Parts



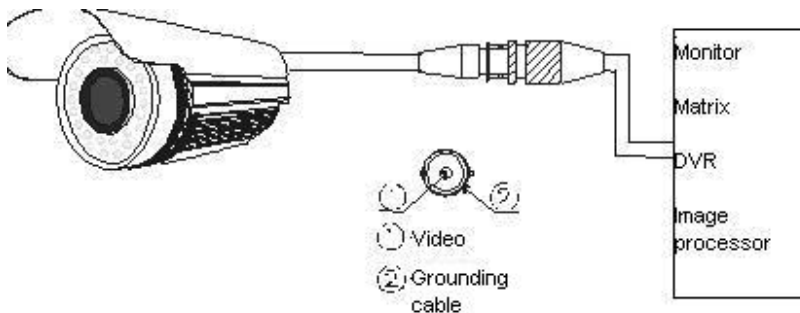
- ① Network connector
- ② Video output terminal
- ③ Alarm input/output cable
- ④ Audio input terminal (black)
- ⑤ Power supply terminal
- ⑥ RS485 port
- ⑦ Shell
- ⑧ Shield
- ⑨ LED panel
- ⑩ Lens

## 5. Connections

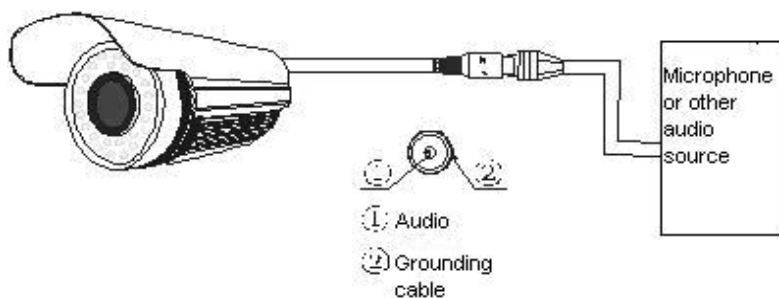
### 5.1 Power Supply Connection



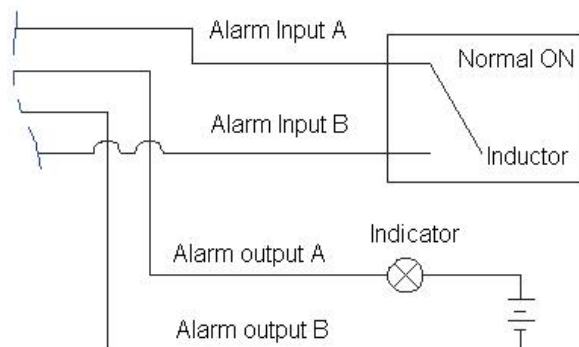
### 5.2 Video Output Connection



### 5.3 Audio Input Connection

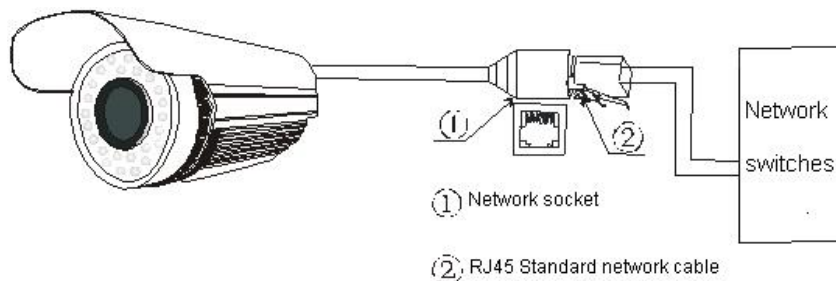


### 5.4 Alarm Connection



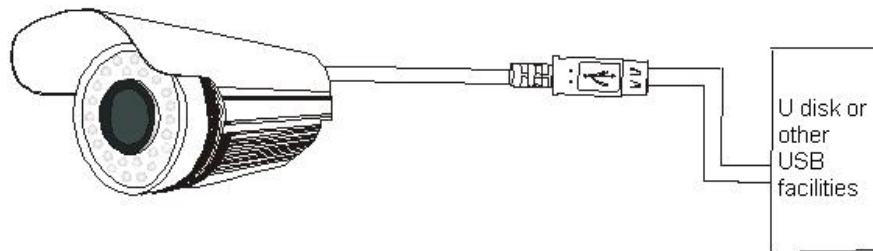
Alarm cable:  
 Green cable: passive alarm input A  
 Brown cable: passive alarm input B  
 Red cable: passive alarm output A  
 Purple cable: passive alarm output B

### 5.5 Network Port Connection



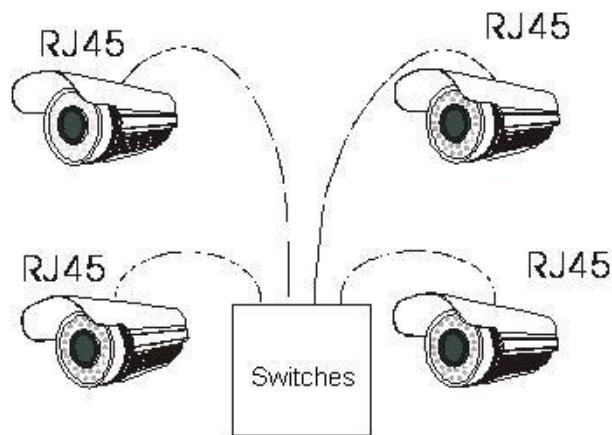
### 5.6 RS485 Communication Port Connection





### 5.7 Connection Mode of RJ45

- RJ45 network cable
- Ultra-five cable
- Recommended maximum length: 80mm



## 6. Installation

### 6.1 Preparation

- Check product packing and if any accessories missing.
- Select proper installing position with enough bearing, such as surface of concrete wall or metal bracket.

### 6.2 Outdoor Wall Installation

#### 6.3 Installation Steps:

##### Step 1. Preparation

Select wall or hang installing brackets.

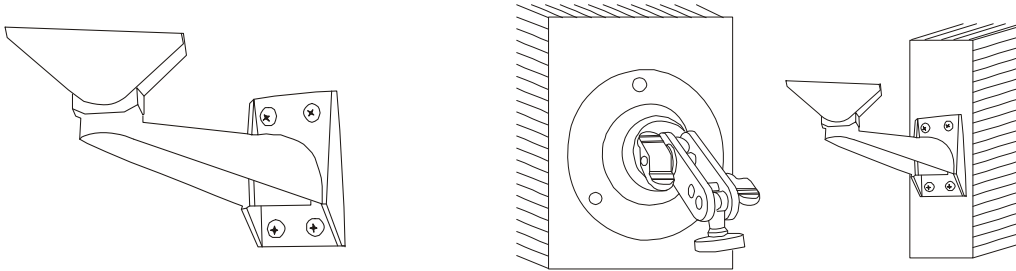
- a. Selection of installation surface

Note: Please consult with expert about weight bearing capacity of installation surface and structure. If the bearing capacity is not enough, the camera may drop and damage. Please refer to weight of camera in specification sheet.

- b. Prepare hardware which will be used on installing surface, e.g. nut or fixing bolt, etc.

**Step 2. Installing bracket**

Install bracket on installing surface by using bolts, which come with product.



A: The bracket

B: Wall installation

**Step 3. Install camera**

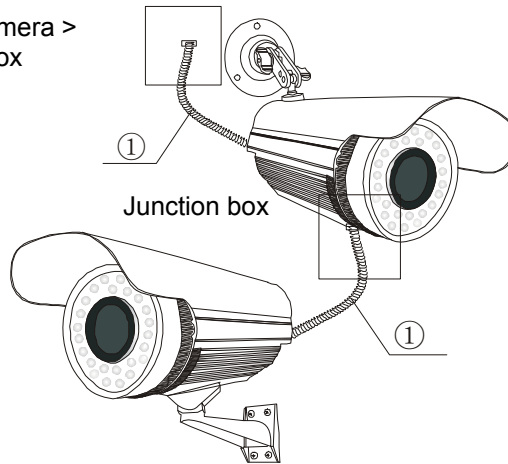
Bracket above camera

As the following figure shows, the camera can be installed from the bottom. Size of install hole should be fit for standard camera bolt size.

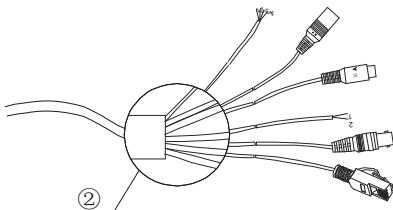
Bracket above camera

As the following figure shows, the camera can be installed from the bottom. Size of install hole should be fit for standard camera bolt size.

< Bracket above camera >  
Junction box



< Bracket under camera >



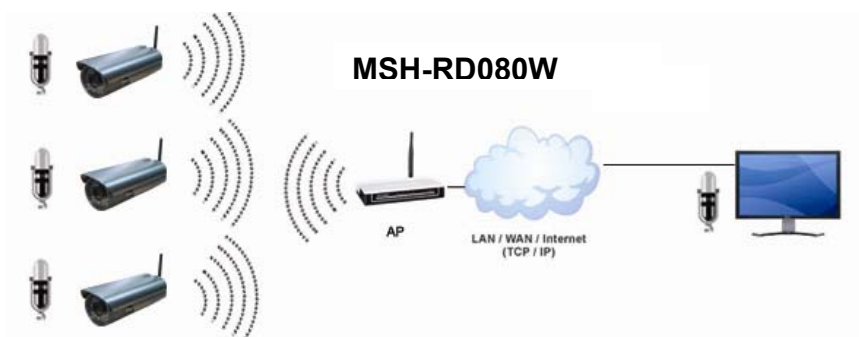
**Bracket under camera**

Loosen the two fixing bolts, remove the installing adapter from top of camera and install it under the camera, then install camera on bracket.

Note: Install adapter by using the original two bolts, bolt with too large length may damage internal parts.

- ☞ ① is 3-inch plastic hose. During installation one 3-inch plastic hose need to be used outside the connection cables.
- ☞ ② cannot be exposed during installation so that the camera would not be damaged by the rain.

## 7. Basic System Diagram and Operating Circumstance



### Operating environment

After the equipment installed and connected to the network, it should be operated on Server Software Platform of Microseven Digital Video Server.

## 8. Specifications

Item	Sub-item	Index
<b>Camera Parameter</b>	Pick-up Device	1/3" Sony Super HAD CCD
	Pixel	795(H)×597(V)PAL 768(H)×494(V) NTSC
	Horizontal Resolution	480TVL
	Scanning Area	4.9mm(H)×3.7mm(V)
	Scanning Mode	625 Lines/50 Fields/25 Frame(PAL) 525 Lines/60 Fields/30 Frame(NTSC)
	Horizontal	15.625KHz (PAL), 15.750KHz (NTSC)
	Vertical	50Hz(PAL), 60Hz(NTSC)
<b>Video</b>	Video Output	1 channel PAL/NTSC, 1.0V[p-p] 75Ω (BNC)
	Image Compression Standard	H.264
	Resolution	QCIF: 176 * 144 (PAL), 176*120 (NTSC)

		CIF: 352 * 288 (PAL), 352*240 (NTSC) H-D1: 720 x 288 (PAL), 360*480 (NTSC) D1: 720 x 576 (PAL), 720*480 (NTSC)
	Frame rate	Max: 25fps(PAL), 30fps(NTSC)
	Bit Stream	100Kbps ~ 3Mbps, CBR/VBR adjustable
	LOGO overlay	Support character and time overlay on image
<b>Alarm</b>	Alarm function	Support 1 channel alarm input/output
<b>Audio</b>	Audio Input	1channel, RCA interface, microphone or other audio input, single track
	Audio Sampling Rate	8KHz
	Audio Sampling Rate	8KHz
	Compression Standard	G.711
<b>IR</b>	IR distance	40M
<b>Network</b>	Interface	One RJ45, 10M/100M self-adjustable, connect Ethernet switch or Ethernet HUB, etc.
	Protocol	TCP/IP, UDP/IP, HTTP, FTP, ICMP, Telnet, IGMP, PPPOE, DDNS, DNS, DHCP
	IE Application	Built-in web server, allows IE browsing and controlling
	Network Time Check	Provide the interface for network time checking
	Equipment Search	Support equipment searching by Ethernet broadcasting
	Wireless Network	Net speed: 54Mbps
		Indoor wireless transmit distance with barrier: 20 ~ 30m
Indoor wireless transmit distance without barrier: within 100m		
<b>Safety</b>	User Administration	Provide multi-level user administration
	Built-in Watchdog	Timing detection of chips & software work status, auto system reset
	Remote reposition	Realize remote reposition through network
<b>Others</b>	Local storage (optional)	Support SD card
	Communication Port	RS485
	Waterproof	IP66
	Power Supply	DC12V 2A
	Consumption	12W
	Working Temperature	-10°C ~ +50°C
	Working Humidity	≤95
	Size/Weight (with lens)	9.1 in X 4 in X 4 in / 3.10 lb

## 9. Frequently Asked Questions

- ☞ **Q: System operation could not be activated, the power indicator does not light.**  
**A: Check if the power is connected, and if the input voltage is normal.**
- ☞ **Q: Network indicator does not light and cannot login the system.**  
**A: Check if the network is connected, and if the net line is inserted properly.**
- ☞ **Q: Unable to upgrade or failed in upgrade.**  
**A: Check if the network is connected, and the path of the upgraded files are correct, and check if there is any access authority allowed.**

**Note: Please contact us at [support@microseven.com](mailto:support@microseven.com) if above problems still cannot be solved by following this manual.**

## 10. Accessories

Body cover.....	1 pcs
ALC lens connector (YFE4191J100).....	1 pcs
Network cable .....	1 pcs