

**Appendix 6.**

**User manual**

# WIRELESS CAMERA

## User Manual

English

SEB-1004RW

### IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/ accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



### SPECIFY SERVICE INSTRUCTIONS AND WARRANTY TERMS

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC NOTE:

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT.

SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.



PT01-000907A

### WARNING

- STRANGULATION HAZARD - Keep cord out of child's reach. NEVER place camera or cords within 3 feet of crib or playpen. Never use extension cords with adaptors. Only use the adaptors provided.
- Some adult assembly or installation required.
- This product contains small parts that may cause choking. Keep small parts away from children.
- This product is NOT intended to replace proper supervision of children. You MUST check your child's activity regularly, as this product will not alert parents to silent activities of a child.
- Before using this product, read and follow all instructions contained in this booklet, and read and follow all instructions and warnings on the product.
- To prevent entanglement with adaptor cords, NEVER PLACE THE CORD IN OR NEAR A CRIB OR PLAYPEN. DO NOT place the product or its adaptor cords within reach of children.
- ALWAYS KEEP THE TRANSMITTER, RECEIVER AND ADAPTORS OUT OF REACH OF CHILDREN.
- NEVER use the transmitter or receiver near water, including near a bathtub, sink, laundry tub, wet basement, etc.
- This product is not intended for use as a medical monitor and its use should not replace adult supervision.
- Check reception regularly. Test monitor before use and after changing camera location.
- Always unplug adaptors from wall outlets and power sources during periods of non-use.

**The wireless signal transfer range may be shortened if there exists an obstacle such as a concrete wall between.**

- To prevent overheating, keep the product and DC power adaptors away from any direct sunlight and heat sources such as radiators, heat registers, cooking devices (e.g., stoves and ovens) and other appliances that produce heat (e.g., amplifiers, televisions and stereos).
- Ensure that the product is well ventilated during use. Avoid contact with pillows and furniture that may block ventilation.
- Use only the adaptors provided with the product, as other adaptors may damage the product. Plug the adaptors only into standard household current (100~240 volts AC). Place the adaptors avoiding pinch points otherwise you can damage the adapters.
- When an adaptor is plugged into a power source, DO NOT touch the exposed end of the adaptor's cord.
- Do not use extension cords with the DC power adaptors to avoid entanglement.
- This product should only be serviced by qualified and authorized Samsung service centers.
- Images and sounds are transmitted by the product over public airwaves and transmissions may be picked up by other units.
- Caution if you use the system to watch a young child, do not place the camera where the child can reach.

- This appliance and its antenna must not be collocated or operation in conjunction with any other antenna or transmitter. A minimum separation distance of 20 cm must be maintained between the antenna and the person for this appliance to satisfy the RF exposure requirements.



Samsung Techwin cares for the environment at all product manufacturing stages, and is taking measures to provide customers with more environmentally friendly products. The Eco mark represents Samsung Techwin's devotion to creating environmentally friendly products, and indicates that the product satisfies the EU RoHS Directive.

### WHAT'S INCLUDED

The system comes with the following components:



Camera 1EA & Receiver 1EA



adaptor (2EA)



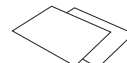
Camera bracket



Screw 3EA & Plastic anchor 3EA



A/V cable 1EA & UTP cable 1EA



User Manual & Warranty Card

### GETTING STARTED

#### ► Powering camera and receiver

##### Wireless Receiver / Wireless Camera

Plug the adaptor power output cable into the 12V DC input of the receiver/camera, and plug the power plug into a wall outlet or surge protector.



#### ► Pairing camera and receiver

This camera will communicate with the receiver once powered on.

- It is highly recommended to pair the camera to the receiver before permanently mounting the camera.

##### Wireless Receiver

Press **PAIR** button on receiver for 1 second, then a message will be displayed on the screen. The receiver will count down from 30-0 - you must press the **PAIR** button on the camera during this time to successfully pair the camera.

If the button on the camera is not pressed, the receiver will return to the view screen, and no pairing will take place.



##### Wireless Camera

Press the **PAIR** button on the front of the camera. Once the camera has been paired, it will be immediately viewable on the TV or monitor.



#### ► Installing your camera and receiver

##### Wireless Receiver

This receiver can only be desktop or table stand.

## Wireless Camera

- Mount the camera to the wall
  - Mark the position of the screw holes on the wall, drill holes and insert the supplied plastic anchors, then firmly fix the camera bracket to the plastic anchors with supplied screws.
- Adjust the viewing angle of the camera
  - You can adjust the viewing angle to monitor desired area by rotating the camera bracket.



- Aim the camera to best optimize the viewing area: Select a location for the camera that provides a clear view of the area you want to receiver, which is free from dust, and is not in line-of-sight to a strong light source or direct sunlight.
- Avoid installing the camera where there are thick walls, or obstructions between the camera and the receiver.

## ▶ Connecting other device

### Wireless Receiver

Connect one end of the included AV cable to the AV output of receiver, and connect the other end to the Video IN (Yellow) and Audio IN (White) ports on the DVR.

- When connecting the receiver to DVR using AV cable, connect power adaptor to the Receiver.

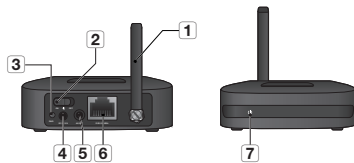


Or connect one end of the UTP cable to the RJ-45-Jack, and connect the other end to the DVR. Receiver may be turned on while connecting UTP cable.



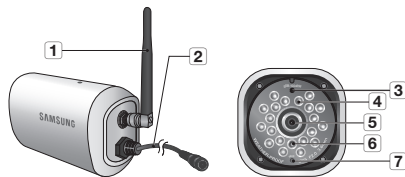
## GETTING TO KNOW YOUR MONITORING SYSTEM

### Wireless Receiver



Item	Description
<b>1</b> Antenna	Receives signals from the camera. Adjust the antenna to vertical position for better signal reception.
<b>2</b> Power switch	Slide the switch to left side to power on the receiver, and to right side to power off the receiver.
<b>3</b> Pairing Button	It is used to pair the camera with receiver.
<b>4</b> 12V Power Input	Connect the included DC 12V power adaptor to power the receiver.
<b>5</b> A/V Out Port	Connect the included AV cable to view video on a TV or monitor, or record to a VCR/DVR.
<b>6</b> RJ-45 Jack	Connect the UTP cable to DVR system to view video from the receiver.
<b>7</b> Power Indicator LED	Red LED is on when power on, blinking red LED is when is pairing.

### Wireless Camera



Item	Description
<b>1</b> Antenna	Sends signals to the receiver.
<b>2</b> DC Adaptor Jack	Plug the DC adaptor to the jack for camera's power supply.
<b>3</b> Microphone	Receives sounds from the area near the camera, and transmits sound from the camera to the receiver.

Item	Description
<b>4</b> IR LEDs	Infrared LEDs provide viewing in no/low light conditions
<b>5</b> Lens	Catches the video in front of the lens and transmits video from camera to receiver.
<b>6</b> CDS Sensor	Detects illumination condition around camera and emits signal to power on the IR LED when it is in no/low light conditions.
<b>7</b> Pairing Button	It is used to pair the camera with receiver.

## APPENDIX

### Specifications

Item	Details
<b>System General</b>	
Receiving Frequency Range	2.400GHz~2.480GHz
Transmitting Power/ERP	18dBm Max
Data Rate	2 Mbps
Receiving Sensitivity	-81dBm
Type of Spread Spectrum TX	FHSS 39 Channels
Demodulation Type	GFSK
Transmitting Distance	TBD
<b>Wireless Camera</b>	
Image Sensor Type	1/4" Color CMOS Image Sensor
Effective Pixels	H: 640 V: 480
Image Resolution/Frame	VGA 640x480@20FPS
White Balance	Auto
Lens	3.6mm F=2.0
Viewing Angle (Diagonal)	46 degree
Minimum Illumination	5 Lux without IR LED Illumination
IR LED Type/Night Vision	20 LEDs / 850mm 15m (with IR LED)
Power Consumption	140mA Max without IR ON 260mA Max with IR ON
Power Requirement	12V DC ±5%
Operating Temperature	-10°C ~ 40°C (14°F ~ 104°F)
Operating Humidity	0% ~ 85% RH
Environment Rating	IP65
Dimension	117.5(L)x64.5(W)x115.5(H) mm
Weight	355g
Regulation Compliance	FCC
RoHS Compliance	Yes

Wireless Receiver	
Camera Housing Material	Aluminum/ABS
Mounting Stand Material	Aluminum alloy
Other Special Feature	Built-in Microphone/Night Vision
Resolution	VGA(410 TV line)
Video Output	1.0Vp-p @75Ωload
Audio Output	1.0Vp-p @600Ωload
Power Requirement	12V DC ±5%
Power Consumption	140mA
Operating Temperature	-10°C ~ 40°C (14°F ~ 104°F)
Operating Humidity	0% ~ 85% RH
Environment Rating	Indoor use only
Dimension	83(L)x80(W)x25(H) mm
Weight	82.5g
Regulation Compliance	FCC
RoHS Compliance	Yes
Receiver Housing Material	ABS

### Troubleshooting

Problem	Solution
No picture from a camera	<ol style="list-style-type: none"> <li>Check all connections to the camera. Make sure the adaptor is plugged in.</li> <li>Make sure that the receiver is ON.</li> <li>Make sure that the camera is in range of the receiver.</li> <li>Make sure the receiver is well connected with TV or monitor.</li> </ol>
The picture is dropping	<ol style="list-style-type: none"> <li>Move the camera closer to the receiver.</li> <li>Try repositioning the camera, receiver or both to improve the reception.</li> </ol>
The picture is or has become choppy	<p>The picture may become choppy when experiencing a lower frame rate (i.e. 10 frames per second vs. a higher 20 frames per second).</p> <ol style="list-style-type: none"> <li>Try moving the camera closer to the receiver.</li> <li>Remove obstructions between the receiver and camera.</li> </ol>



### SALES NETWORK

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