

# **ECHOMASTER RVC-W3 AHD Wireless Camera and Receiver** Kit Instructions

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**ECHOMASTER RVC-W3 AHD Wireless Camera and Receiver Kit** 



# **Product Information**

This product is designed to meet the FCC radiation exposure limits for an uncontrolled environment. It is important to follow the guidelines provided to ensure safe usage.

• Compliance: FCC radiation exposure limits

• Environment: Uncontrolled

• Minimum Distance: 20cm between the radiator and your body

## **Product Usage Instructions**

- 1. Ensure that the equipment is installed in a suitable location with proper ventilation and away from any obstructions.
- 2. Maintain a minimum distance of 20cm between the radiator of the equipment and your body at all times during operation.
- 3. Avoid placing any objects or materials near the radiator that may obstruct the airflow or increase the risk of heat accumulation.
- 4. Do not modify or tamper with the equipment in any way, as it may affect its compliance with FCC radiation exposure limits.
- 5. If you experience any discomfort or abnormal symptoms while using the product, immediately stop using it and consult a healthcare professional.

6. Follow all other safety instructions and guidelines provided in the user manual to ensure safe and optimal usage of the equipment.

#### Introduction

Thank you for purchasing your EchoMaster Wireless Camera & Receiver. This EchoMaster camera with receiver is designed to improve safety during driving by providing high quality images of surrounding areas and obstacles in the vicinity of the vehicle. Please ensure you read and understand all aspects of this manual before fitting or using your EchoMaster camera. Choose a suitable mounting place dependant on the application. Ensure that there are no wiring harnesses or hoses/pipes located behind this panel before drilling.

#### **Features**

- · Universal wireless camera and receiver
- CVBS/AHD Selectable
- Receiver supports 2 wireless cameras (Compatible camera: P/N: RVC-W3-C)
- 3 viewing modes: CAM1, CAM2 or split screen
- · Infrared night vision

#### **Box Contents**

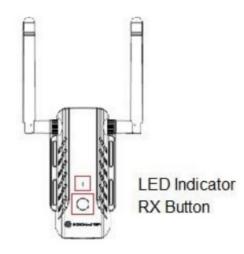
- Camera (with built in TX)
- Camera Power Cable
- Power & Video Cable
  - (Length 0.15m/0.5ft)
- · Receiver Extension Cable
  - (Length 3.66m/12ft)
- 2 x Red Male Spades
- 3 x Antennas
- HoleSaw
- Receiver (RX)
- 2 x Red T-taps
- 2 x 10mm screws
- 3 x Cable Ties
- Double Sided Tape
- User Manual

## **Pairing the Camera**

- The Camera & Receiver have been paired previously and there is no need to pair again in normal use cases.
- Pairing will be needed in case the camera or receiver needs to be replaced or under other special circumstances.

## How to pair





- Power on the RX. Press and hold the button on the RX for 3 seconds. It will enter pairing mode and the LED indicator will begin to flash rapidly.
- Within 30 seconds, power on the Camera. Pairing will then start. If the signal is not detected within 30 seconds, pairing mode will end. Repeat the steps for pairing.
- Once pairing is complete, the indicator light on the RX will change from flashing rapidly to constant ON.

## How to pair an additional EchoMaster wireless camera

- The original camera would have been paired to CAM1 by default. Press the RX Button to switch to CAM2. Then repeat the steps on how to pair the camera.
- "Compatible only with EchoMaster P/N: RVC-W3-C"

## **Functions**

## How to cycle through video sources:

• Press the RX Button to switch between CAM1, CAM2 or split screen mode.

Note: The RX must be in an accessible location to utilize this feature.

## How to select AHD/CVBS:

 Default (factory) setting is AHD. Press and hold the RX Button for 6 seconds to switch between AHD and CVBS mode. The indicator light will flash slowly 3 times to indicate successful selection.

## How to check FW (Firmware) versions:

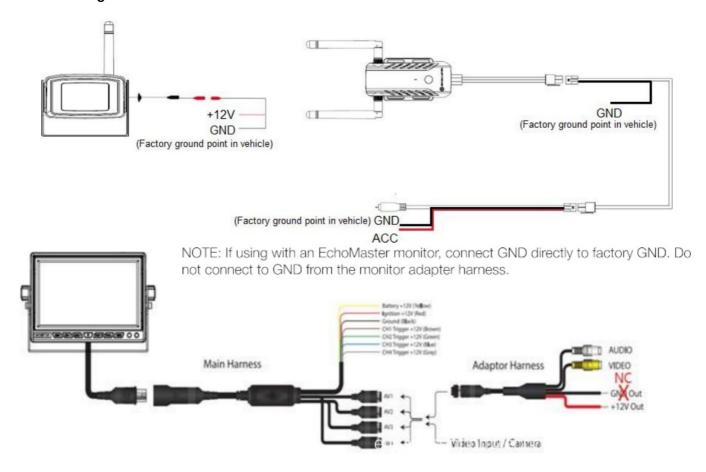
Press the RX Button three times consecutively and both the RX and TX FW will appear on the screen. (TX FW will only appear if a camera is connected.)

#### **LED Indicator Status:**

Indicator Status	Definition	
00000	No power to RX or not paired to a camera	
•••••	Flash once: RX is powered on	
	Flash rapidly: RX is in pairing mode	
•••••	Flash slowly 3 times: AHD/CVBS is switching successfully	
•••••	Constant on: RX is working properly; Camera signal received	

# Wiring Diagram & Pin-Out

## Camera wiring



- Red (Power): Locate the Parking Lamp (+) wire in the vehicle/trailer. Connect this wire to the camera's red power cable
- Black (Ground): Locate a suitable location to ground (negative) the black wire in the wiring harness. You may connect this wire to a factory ground point in the vehicle, or attach a ring terminal to the black wire and screw into the body of the vehicle/trailer. If you choose to screw into the body, clean the area of any paint or adhesives to allow for good metal-to-metal contact.

**NOTE:** Only one of the GND leads from the receiver needs to be connected. Two are provided for convenience.

# **Specifications**

Receiver		
Output Signal	AHD/CVBS	
Output Resolution	1280×720 AHO/ 720×480 CVBS	
Transmit Power	21±2 dBm	
Sensitivity	-92dBm	
Working frequency	2.4GHz ISM	
Antenna Ram	2.0dBi@2400—2500MHz	
Transmission power	23±2 dBm	
Working frequency	2.4GHz ISM	
Antenna Rain	2.0dBi@2400"2500MHz	
Frequency hopping	2412-2462MHz	
Frequency hopping interval	5MHz	
System	OFDM/CCK	
Transmission frame	30fps	
Latency time	<150ms	
Cable length	200mm / 7.91n	
Operating voltage	ACC 12V	
Working current	Max 250mA (@12V)	
Operating temperature	-20•c to +6s0c	

Camera (with built-in TX)		
Image sensor	GC2053	
Lens	1/2.9"	
Horizontal angle	94° ±5° AHD / 99° ±5° CVBS	
Vertical angle	54° ±3° AHD / 50° ±3° CVBS	
Resolution	1280x720 AHD / 720x480 CVBS	
Minimum illumination	0 Lux (IR Mode)	
Transmission power	23 ± 2 dBm	
Working frequency	2.4GHz ISM	
Antenna gain	2.0dBi@2400~2500MHz	
Frequency hopping	2412-2462MHz	
Frequency hopping interval	5MHz	
System	OFDM/CCK	
Cable length	400mm / 1.31ft	
Operating voltage	ACC 12V	
Working current	Max 350mA (@12V)	
IP Rating	IP67	
Operating Temperature	-20°C to +65°C	

#### **FCC STATEMENT**

FCC ID: IK4-RVC-W3

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
- 2. this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/IV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

**AGREEMENT:** End user agrees to use this product in compliance with the instructions and terms of use above and with all State and Federal laws. ECHOMASTER provides instructions and safety warnings with respect to this product and disclaims all liability for any use not in conformity with those instructions or other misuse of its product. If you do not agree, please discontinue use immediately and contact EchoMaster. This product is

intended for off-road use and passenger use only.

## Contact

• Clearwater, Florida 33760

• EchoMaster is a Power Brand of AAMP Global.

• Echomaster.com

• email: support@echomaster.com

• Tel: 800-477-2267

#### **Documents / Resources**



**ECHOMASTER RVC-W3 AHD Wireless Camera and Receiver Kit** [pdf] Instructions IK4-RVC-W3, IK4RVCW3, RVC-W3, RVC-W3 AHD Wireless Camera and Receiver Kit, AHD Wireless Camera and Receiver Kit, Wireless Camera and Receiver Kit, Camera and Receiver Kit, Receiver Kit, Kit

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