

# **REAL TIME VIDEO SINCE 1996**



# EWC-003 (MXR-5838c ) # MX-5838c

# 5.8GHz Wireless Camera

It's About Real-Time

# OWNER'S MANUAL

## **TABLE OF CONTENTS**

TABLE OF CONTENTS	2	
SAFETY NOTICES		
INTRODUCTION		
PARTS LIST	4	
SYSTEM SETUP	5	
Channel Selection Camera	5	
Connections	6	
Camera Mounting Options Channel Selection Receiver	7	
Channel Selection Receiver		
Conducting a Bench Test	9	
TIPS & TROUBLE SHOOTING	10	
SPECIFICATIONS	11	
WARRANTY INFORMATION/ TERMS & CONDITIONS 12		

# SAFETY NOTICES

- I. THIS DEVICE COMPLIES WITH FCC RULES PART 15. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITONS:
  - (1) This device may not cause harmful interference, and
  - (2) this device must accept any interference, including interference that may cause undesired operation of the device
- II. In order to comply with the FCC/IC adopted RF exposure requirements, this transmission system will be installed by an authorized professional installer of VideoComm Technologies. Installation of all antennas must be performed in a manner that will provide at least 23cm clearance from the front radiating aperture, to any user or member of the public.
- III. This is NOT an intrinsically safe device. Do not take into area where intrinsic safety is required. Bodily harm may result if warning is ignored.
- IV. DO NOT OPERATE TRANSMITTER WITHOUT ANTENNA CONNECTED TO ANTENNA PORT. Failure to do so will result in damage to the unit and void the warranty.
- V. DO NOT OPERATE THE TCO-5800 SYSTEM WHEN the Transmitter & Receiver are closer than ten feet to each other. The devices may not work properly and permanent damage can occur.
- VI. The device has been certified by the FCC for use with other products without any further certification (as per FCC section 2.1091.) Changes or modifications not expressly approved by VideoComm Technologies could void the user's authority to operate the equipment.

The term "IC:" before the radio certification number only signifies that Industry Canada Technical specifications were met.

### **INTRODUCTION**

### **Introduction**

VideoComm introduces a real-time wireless camera solution that is not susceptible to interference from 2.4GHz 802.11 b/g data devices. Featuring 4 user selectable channels, this wireless camera system is an ideal choice when multiple wireless video links are required for any portable, temporary or covert surveillance and monitoring application.

### <u>Advantages</u>

- Easy to install and operate with all accessories included
- 4 user selectable channels
- NO interference from 2.4GHz 802.11 b/g data devices
- Includes new 5.8GGz low profile design desktop receiver
- 420 Line resolution color CCD camera
- Range up to 1,000 feet line-of-sight, up to 300 feet indoors
- One Year Limited Warranty
- RoHS compliant models available upon request.
- Ideal for portable, temporary and covert surveillance or monitoring applications



# PARTS LIST

This 5.8GHz wireless camera system has been carefully manufactured, tested, inspected and packaged. Please inspect the packaging carefully to ensure you have received all the necessary parts and accessories listed. Refer to the following chart to determine which parts are included with your product. If any parts are missing or damaged, contact VideoComm Technologies, Customer Service or your re-seller immediately.

5.8GHz Wireless Camera – # MX-5838c	One	One
Desk Top Receiver – #RX-5808		One
12VDC Power Supply – # PS-1250	One	Тwo
Camera Mounting Bracket - # BRK-1420	One	One
AA Battery Pack Holder - # BP-900	One	One
ower Input Jumper Cables - # А-ВRL9VJК	Тwo	Two
3dBi Rubber Duck Antenna - # RUB-5803		One



# **SYSTEM SETUP**

### **Channel Selection Camera**

For the wireless link to work, both devices must have the same channel selected.

- 1. Power-UP the Camera using the included power supply & switch to "ON"
- 2. Set the desired channel by moving the slide switch
- 3. The receiver must be set to have the same and matching channel as the camera.
- 4. Flip UP the directional antenna and pivot left or right to "aim" the transmitted signal in the direction of the receiver. The outside "dotted" face of the antenna must be aimed.
- 5. Do not rotate the antenna more than 180 degrees, **Left-OR-Right**, from the center position. Damage to the antenna may occur.



Channel # 1	5.733 GHz	Channel # 6	N/A
Channel # 2	5.752 GHz	Channel # 7	N/A
Channel # 3	5.771 GHz	Channel # 8	N/A
Channel # 4	5.790 GHz	Channel # 9	N/A
Channel # 5	N/A	Channel # 0	N/A

### **Connections**



Connect

Connect RCA Cable directly to camera for secondary hardwired video output











### **Channel Selection Receiver**

For the wireless link to work, both devices must have the same channel selected.

- 1. Attach the included rubber duck antenna to the TNC connector on receiver.
- 2. Power-UP the Receiver using the included power supply & switch to "ON"
- 3. Set the desired channel by turning the rotary switch to channels from 1-4
- 4. Receiver channels from 5 to 8 will only work with VideoComm Transmitters devices capable of 8-Channels. The MXR-5838c has only 4 channels of selection.
- 5. The receiver must be set to the same channel as the camera.
- 6. We strongly recommend that you do not adjust the video gain adjustment without first consulting a member of the VideoComm Technologies Tech Support Team.

#### Channel # 1 5.733 GHz Channel # 6 5.828 GHz Channel # 2 5.752 GHz Channel # 7 5.847 GHz Channel # 3 5.771 GHz Channel # 8 5.866 GHz Channel # 4 5.790 GHz Channel # 9 5.866 GHz Channel # 5 5.809 GHz Channel # 0 5.733 GHz





### Conducting a Bench Test

With so many technical variables in an installation, the strongest recommendation we can make is to conduct a bench test. After verifying that all components of the system are in good working order and connected properly, we can arrive on the job site confident that all of our devices will install with the least amount of on site effort.

#### **Basic Bench Test Procedure**

#### 1. Physical Inspection of Product

- Compare the unit to the product photo on the attached specification sheet.
- Check for physical damage to the devices, contact your distributor or VideoComm Technologies Technical Support immediately should you suspect damage to the unit.
- Ensure all parts are included.

### 2. Bench Testing Your 5.8GHz device

- Ensure there are no live wires on the test bench that may cause an electrical short.
- Ensure the camera and monitor used in the bench test and on site are in good working order by conducting a hardwired video test.
- Use a multimeter to ensure the power supplies have the proper voltage output.
- Attach the included rubber duck antennas to the receiver.
- Connect power supply leads to the camera & receiver.
- Use a separate power supply for each device. Do not share power supplies.
- Connect the Video Output from receiver to your monitor



# **TIPS & TROUBLE SHOOTING**

### Things that block transmission

Things that block transmission are not always obvious. Consider any obstruction that may get in the way or reduce the wireless signal strength along the way. Here are some of the most common pitfalls:

- Transmitting through walls in an office environment may be limited if the transmitting path has many desks, computers and other office type equipment in it's path. Raise the transmitter and receiver above desks and equipment to minimize obstructions.
- Steel, or anything with steel in it---steel-reinforced concrete (rebar) or metal window screens, or a tool-room cage. Aluminum siding, and energy-saving foil on the insulation in the walls are sneaky killers for radio waves. Some metallic paints or metallic wallpapers also block signals.
- Mirrors block transmission, because the "mirror" consists of a metallic backing on the glass.
- Lead windows will kill radio transmission; also windows that are UV coated may have thin metal energy-saving film.
- Other materials like brick, drywall or wood, will also cut down on the signal, depending on water content.

### Snow on the Monitor

If there is snow or noise on your monitor this is a good indication that the receiver is receiving a weak signal.

To correct an image that has a lot of noise (snow) :

- Move the transmitter and receiver closer together.
- Eliminate obstructions between the transmitter and receiver.
- Add a high gain antenna to the receiver for increased range and signal performance.

# **SPECIFICATIONS**

Camera Operating Frequency	5.725GHz – 5.875GHz, 4 User Selectable Channels		
<b>Receiver Operating Frequency</b>	5.725GHz – 5.875GHz, 8 User Selectable Channels		
Radiated Power	50mV/m @ 3m		
Range (Line-of-Sight)	Up to 1,000 feet Line-of-Sight / 300 feet indoors		
Transmitter Antenna Type	3dB Fixed Directional		
Receiver Antenna Type	3dB Removable OmniDirectional		
Receiver Sensitivity	-84 dBm		
Video Format	NTSC and PAL		
Modulation	FM - Frequency Modulation		
Video Output	BNC Female @ 75 Ohms 1 Volt P – P		
Camera Details	420 Lines Resolution - Color <sup>1</sup> /4" CCD Min illumination 1.0 Lux - 3.7mm wide angle lens		
Temperature Range	-22 to +140 degrees Fahrenheit		
<b>Operating Voltage</b>	9 - 14 VDC - Polarity Protected		
Current Consumption	Camera: Receiver:	300mA @ 12VDC 170mA @ 12VDC	
Dimensions	Camera: Receiver	5.8" x 2.0" x 2.8" 7.4" x 4.2" x 1.2"	
Weight	Camera: Receiver	247 g or 8.7oz 441 g or 15.5oz	
FCC / IC / CE Approved	Yes for ALL		



Industrie Canada
 Industry Canada
 Canada
 Canada



### WARRANTY INFORMATION/ TERMS & CONDITIONS

VideoComm Technologies, herein referred to as "VCT."

#### LIMITED WARRANTY

VCT hereby warrants, subject to the conditions here in below, that should this product become defective by reason of improper workmanship or material defect during the specified warranty period, VCT will repair the same, effecting all necessary parts without charge for either parts or labor, or replace the unit at VCT option.

Labor: ONE (1) Year from the date of original purchase from authorized Re-seller. TWO (2) Years for Antennas only.

Parts: ONE (1) Year from the date of original purchase from authorized Re-seller. TWO (2) Years for Antennas only.

#### Void Warranty

Purchaser warranty will be void and purchaser waves any rights to make warranty claim if product has been opened, altered or modified, repaired or serviced by anyone, other then the service facilities authorized by VCT to render such services. Further, the seal/serial number on the unit must not have been altered or removed. The unit must not have been subject to accident, misuse, abuse or operated contrary to the instructions provided. The opinion of VCT with respect to this matter shall be final. This warranty does not include and is not extended to broken and damaged accessories, batteries and exposed antennas and to parts wearing out due to normal wear and tear.

#### Proper Delivery:

Returned products will not be accepted for warranty repair unless accompanied with a valid Return Merchandise Authorization (**RMA**) number issued by VCT. RMA numbers issued by VCT are valid for 15 days. Shipments received after 15 days will be refused. The unit must be shipped, freight prepaid or delivered to the VCT Service facility, in either its original package or similar package, affording an equal degree of protection and with instructions indicating the location within Canada or the United States to which the unit will be returned. The repaired unit will be returned to the customer freight prepaid unless the warranty claim is deemed void or invalid. All accessories included with the unit must be listed individually on the packing slip for the shipping documentation. VCT will not accept any liability, for loss or damage to such accessories if they are not listed.

#### **Proof of Purchase Date:**

This warranty applies and commences to VCT products, from the original date of purchase from an Authorized Re-seller. Proof of purchase (i.e.: photocopy of invoice), must be included with product when submitting for warranty repair.

#### Warranty Limitations:

This warranty does not cover maintenance or check-ups, if required. This warranty gives you specific legal rights and you may also have other rights, which vary from state/province to state/province. Some states/provinces do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, therefore the above exclusions or limitations may not apply to you. VCT is not responsible or liable for indirect, special, incidental or consequential damages arising out of or in connection with, the use or performance of the product or other damages with respect to loss of property, loss of revenues or profit, or cost of removal, installation or reinstallation.

#### **PRODUCT RETURNS**

**30 Day Product Return Policy \*\*** If you are not satisfied with a product, you may return it to VCT within 30 days from original date of shipment within the following conditions:

- Original shipping charges are not refundable unless deemed that VCT shipped incorrect item(s), incorrect quantity (ies) or original manufacturers defective product ( subject to VCT validation ).
- Returned products will not be accepted unless accompanied with a valid Return Merchandise Authorization number (RMA).
- RMA numbers issued by VCT are valid for 15 days. Shipments received after 15 days will be refused.
- Returns must include a copy of original invoice, the completed VCT packing slip, and a detailed statement of reason for return.
- Customer is responsible for all freight charges, duties and taxes, if applicable. Product must be properly packaged and shipped, prepaid to VCT in its original packaging, or similar packaging that offers an equal degree of protection. VCT will charge the full replacement cost for any missing components or parts. VCT is not responsible for lost or damaged merchandise. We strongly recommend insuring products for return shipping.
- Return claims are void if manufacturer's seal is broken and/or products are altered or modified, subjected to an accident, improper handling, improper installation, misuse and abuse or operated contrary to the operating instructions. Products returned that are not in "re-saleable" condition will be returned to customer at their expense.
- Discontinued items, special or custom-made equipment items (items not carried as stock even though they may appear on price lists) may not be returned. Returned products will be evaluated at the original purchase price and not at any subsequent price increase or decrease.
- \*\* Subject to the conditions stated above, the following re-stocking fees will apply to products returned for credit/refund.
  VCT reserves the right to determine the validity of the product returned and / or refuse to accept product for credit.
  0 % Re-Stocking Fee (less original shipping charges): If product is returned within 30 days from original VCT ship date.
  25% Re-Stocking Fee (less original shipping charges): If product is returned within 60 days from original VCT ship date.
  50% Re-Stocking Fee (less original shipping charges): If product is returned within 90 days from original VCT ship date.
  100% Re-Stocking Fee (0% credit): If product is returned after 90 days from original VCT ship date.

#### DISCLAIMER

In no event will VCT or any of its affiliates be liable for any indirect, special, punitive, consequential liability, or incidental damages upon any basis of liability whatsoever even if advised of the possibility of such damages. In addition, VCT does not take any responsibility or assume any liability for the wiring, installation or placement of the equipment Customer purchases, or for the activities of any other individual or entity such as Customer's Company, those who prepare the specifications or any local Authorities who inspect or approve Customer's installation.