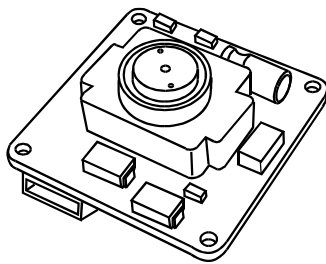


**Instruction and  
Operation Manual**


**1/3" CCD B&W MODULE CAMERA  
1/4" CCD COLOR MODULE CAMERA**

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*Please read this manual thoroughly before use, and keep it handy for future reference.*

## IMPORTANT SAFEGUARDS

1. **READ INSTRUCTIONS**— All the safety and operating instructions should be read before the appliance is operated.
2. **RETAIN INSTRUCTIONS**— The safety and operating instructions should be retained for future reference.
3. **CLEANING**— Unplug video monitor or equipment from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. **ATTACHMENTS**— Do not use attachments not recommended by the video monitor or equipment manufacturer as they may result in the risk of fire, electric shock or injury to persons.
5. **WATER AND MOISTURE**— Do not use video monitor or equipment near water—for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, or the like.
6. **ACCESSORIES**— Do not place video monitor or equipment on an unstable cart, stand or table. The video monitor or equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
- 6A. Video monitor or equipment and cart combinations should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn. 
7. **VENTILATION**— Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to ensure reliable operation of the video monitor or equipment and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video monitor or equipment on a bed, sofa, rug, or other similar surface. Video monitor or equipment should never be placed near or over a radiator or heat register. Video monitor or equipment receiver should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
8. **POWER SOURCES**— Videomonitor or equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your video monitor or equipment dealer or local power company. For video monitor or equipment designed to operate from battery power refer to the operating instructions.
9. **GROUNDING OR POLARIZATION**— This video monitor may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

Alternate Warnings— This video monitor is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
10. **POWER CORDS**— Do not allow anything to rest on the power cord. Do not locate video monitor or equipment where the cord will be to be damaged by persons walking on it.
11. **HEED WARNINGS**— Follow all instructions marked on the video monitor or equipment.
12. **LIGHTNING**— For added protection for video monitor or equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.
13. **OVERLOADING**— Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
14. **OBJECT AND LIQUID ENTRY**— Never push objects of any kind into video monitor or equipment through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
15. **SERVICING**— Do not attempt to service video monitor or equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. **DAMAGE REQUIRING SERVICE**— Unplug video monitor or equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - A. When the power-supply cord or the plug has been damaged.
  - B. If liquid has spilled, or objects have fallen into the video product.
  - C. If the video product has been exposed to rain or water.
  - D. If the video product does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
  - E. If the video product has been dropped, or the cabinet damaged.
  - F. When the video product exhibits a distinct change in performance—this indicates a need for service.
17. **REPLACEMENT PARTS**— When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
18. **SAFETY CHECK**— Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.
19. **FIELD INSTALLATION**— This installation should be made by a qualified service person and should conform to all local codes.

## FCC COMPLIANCE STATEMENT

**INFORMATION TO THE USER:** 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/TV TECHNICIAN FOR HELP

**CAUTION:** CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

CET APPAREIL NUMÉRIQUE DE LA CLASSE B RESPECTE TOUTES LES EXIGENCES DU RÈGLEMENT SUR LE MATÉRIEL BROUILLER DU CANADA.

## **FEATURES**

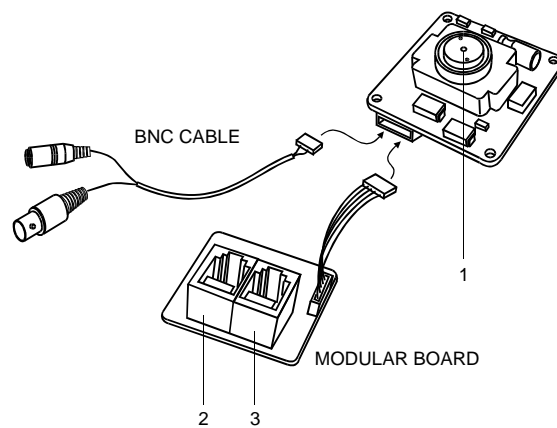
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- **1/3" B/W**  **1/4" COLOR**  **CCD Image Sensor**— This is the part of the camera that produce a high quality picture.
- **Wide Angle 5.5mm(4.3mm) Lens**— Allows a large area to be monitored from a single camera.
- **Electronic Iris**— Automatically adjusts the camera for changes in lighting to ensure an optimal picture at all times.
- **Accessory Input**

**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.**

## CONTROLS

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- 1. Wide Angle 5.5mm(4.3mm) Lens**— Allows a wide area to be monitored.
- 2. Camera Port**— The cable from the monitor plugs into this port.
- 3. Accessory Port**— Accessories are plugged into this port.  
Motion sensors, alarm contact are available separately.



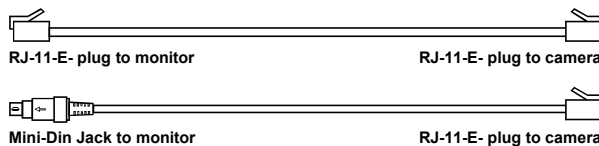
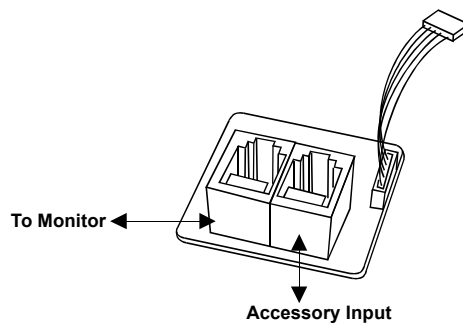
**REMINDER:** Never aim camera at direct sunlight!

## INSTALLATION

1. Unpack and identify the following parts from the shipping container:
  - a. Camera
  - b. Camera Cable
  - c. Instruction Manual
2. The camera cables have RJ-11-E plugs, which are similar to those on telephone cables to ensure an easy installation. Simply plug one end of the cable into the camera (see camera port above) and the other end into the camera port on the rear of the monitor (CA1, CA2, etc.).



**NOTE:** Make sure monitor power is turned off when connecting cameras.



### **SPECIFICATIONS (1/3" CCD B/W MODULE CAMERA)**

<b>Power Source</b>	15 VDC (From Monitor)
<b>Power Consumption</b>	Max. 2.0Watts
<b>Image Sensor</b>	1/3" B/W CCD
<b>Active Pixels (H x V)</b>	512 x 492
<b>Resolution</b>	> 350 Lines
<b>Min Illumination</b>	1.0 lux 50IRE ( F1.2 )
<b>Signal to Noise</b>	46 dB (AGC OFF)
<b>Gamma Correction</b>	0.45
<b>AGC</b>	Internal, automatic
<b>Electronic Iris</b>	1/60 ~ 1/100,000 Sec.
<b>Synchronization</b>	External (VRI)
<b>Signal Format</b>	525 Lines, 2:1 Interlace
<b>Scanning Frequency(H / V)</b>	15.75KHz / 60Hz
<b>Video Output</b>	1.0 Vp-p (75 Ohms)
<b>Lens</b>	5.5mm
<b>Ambient Temperature</b>	14°F to 122°F (-10°C to 50°C)
<b>Ambient Humidity</b>	0 — 96% Non-Condensing

### **SPECIFICATIONS (1/4" CCD COLOR MODULE CAMERA)**

<b>Power Source</b>	15 VDC (From Monitor)
<b>Power Consumption</b>	Max. 2.0Watts
<b>Image Sensor</b>	1/4" COLOR CCD
<b>Active Pixels (H x V)</b>	512 x 492
<b>Resolution</b>	> 330 Lines
<b>Min Illumination</b>	2.0 Lux 50IRE ( F2.0 )
<b>Signal to Noise</b>	46 dB (AGC OFF)
<b>Gamma Correction</b>	0.45
<b>AGC</b>	Internal, automatic
<b>Electronic Iris</b>	1/60 ~ 1/100,000 Sec.
<b>White Balance</b>	Auto
<b>Synchronization</b>	External (VRI)
<b>Signal Format</b>	525 Lines, 2:1 Interlace
<b>Scanning Frequency(H / V)</b>	15.734KHz/59.94Hz
<b>Video Output</b>	1.0 Vp-p (75 Ohms)
<b>Lens</b>	4.3mm
<b>Ambient Temperature</b>	14°F to 122°F (-10°C to 50°C)
<b>Ambient Humidity</b>	0 — 96% Non-Condensing

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