



Extreme CCTV[®]
SURVEILLANCE SYSTEMS

Precision Engineered Opto-Electronics[™]

INSTALLATION INSTRUCTIONS

EX14

All Environment Camera



www.ExtremeCCTV.com

Toll free: 1-888-409-2288

MAN-14-02



IMPORTANT

For best results, please read this Instruction Booklet prior to installing the **EX14** camera.



WARNING!

CSA Certified / UL Listed CLASS 2 power adaptors must be used in order to comply with electrical safety standards.



EU Directives covered by this declaration:

72/9/EC Low Voltage Directives

89/336/EEC Electromagnetic Compatibility Directive

Only qualified personnel shall install any
Extreme CCTV® surveillance product.

Extreme CCTV® will not be responsible for injuries or damages resulting from the improper installation or use of any product sold by **Extreme CCTV®**, their agents, distributors or dealers.

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DESCRIPTION

The ***EX14 All Environment Camera*** consists of a two-piece injection molded watertight housing with a tough polycarbonate viewing window. This compact camera meets IP66 ratings for applications wherever environmentally sealed CCD cameras are required. The camera is especially suited for wash down applications in food processing and industrial clean-room installations.

The *EX14* can be ordered in monochrome or color versions, featuring varifocal and auto-iris IR-optimized lenses. A rigid nylon mounting bracket is also included with the camera.

A voltage regulator circuit allows for 12V dc or 24V ac operation and a range in between. It also provides protection from voltage surge, transient spikes, and reverse voltage.

The *EX14* is available in several models to meet individual requirements or specific needs.

Contact Extreme CCTV® for information.

- sales@ExtremeCCTV.com
- Tel: 1-888-409-2288 (Toll free NA)

See the Light. Get the Picture.™

UNPACKING

Care should be taken when unpacking the shipped unit. Check the parts list and confirm all items have been located. Inspect the equipment thoroughly to ensure nothing was damaged in transit.

Contact Extreme CCTV® if a problem is noted.

- quality@ExtremeCCTV.com
- Tel: 1-604-420-7711 or

see the rear of the booklet for contact numbers.

PARTS LIST (items supplied with unit)

- ***EX14 Camera***
- Two Allen Keys
- One Mounting Bolt
- Nylon Mounting Bracket
- Installation Instructions booklet

ITEMS REQUIRED FOR INSTALLATION

(not supplied with unit)

- mounting hardware & tools

INITIAL PREPARATIONS

- The camera's voltage regulator board (VRB) accepts an input voltage of either 12V **dc** or 24V **ac**, and a range in-between, from a regulated power supply.
- The VRB automatically switches between **ac** or **dc** inputs, therefore no internal wiring changes are necessary to accommodate these input voltages.
- Determine the optimum location for the camera.
Section 1: Camera Mounting
- All cameras have been tested prior to shipment.

GUIDELINES

The installation of the **EX14 Camera** is shown in Sections 1 to 3 listed below.

It is important that these steps are followed in sequence:

1. Camera Mounting
2. Camera I/O Connections
3. Camera Adjustments

1. CAMERA MOUNTING



Caution: Install the mounting bracket with the appropriate screws or drywall anchors to suit the mounting surface. Select a suitable location that is protected from accidental damage or tampering, and environmental conditions that could exceed the camera's general specifications.

See page 14.



Caution: Ensure the selected location is protected from falling objects, accidental contact with moving objects, and unintentional interference from personnel. Follow all applicable building codes.



☞ **The following installation guidelines must be followed:**

- Locate the camera such that it cannot be easily interfered with, either intentionally or accidentally.
- Select a mounting surface capable of supporting the combined weight of the camera and its mounting hardware under all expected conditions of vibration and temperature.
- Secure all cabling.

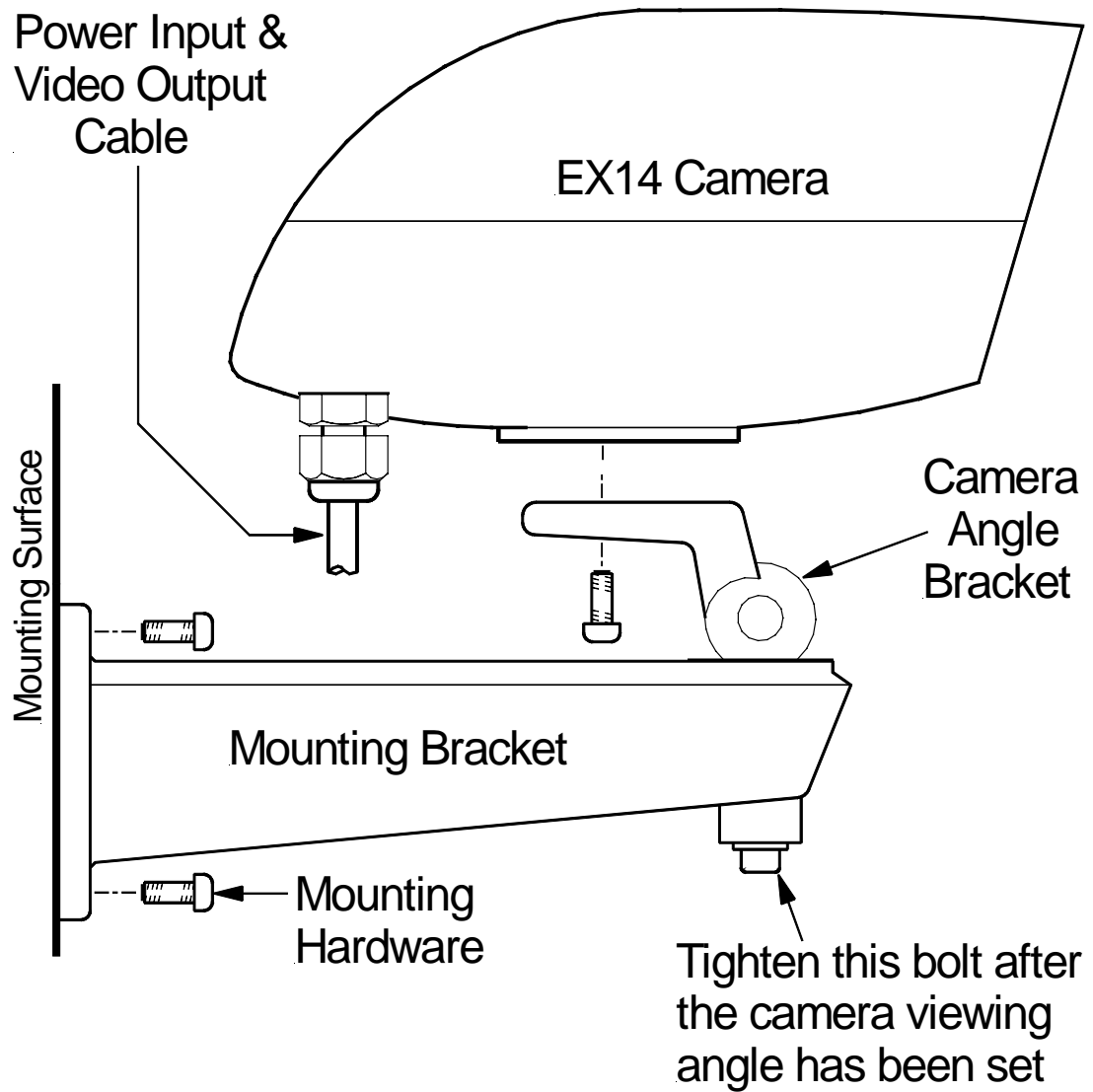


FIGURE 1 – 1
Camera and Bracket – Mounting Details

2. CAMERA I/O CONNECTIONS

Connect the Power Input (**ac** or **dc**) to the camera as shown below. Wires are not polarity dependent. Connect the Video Out BNC connector to a monitor.

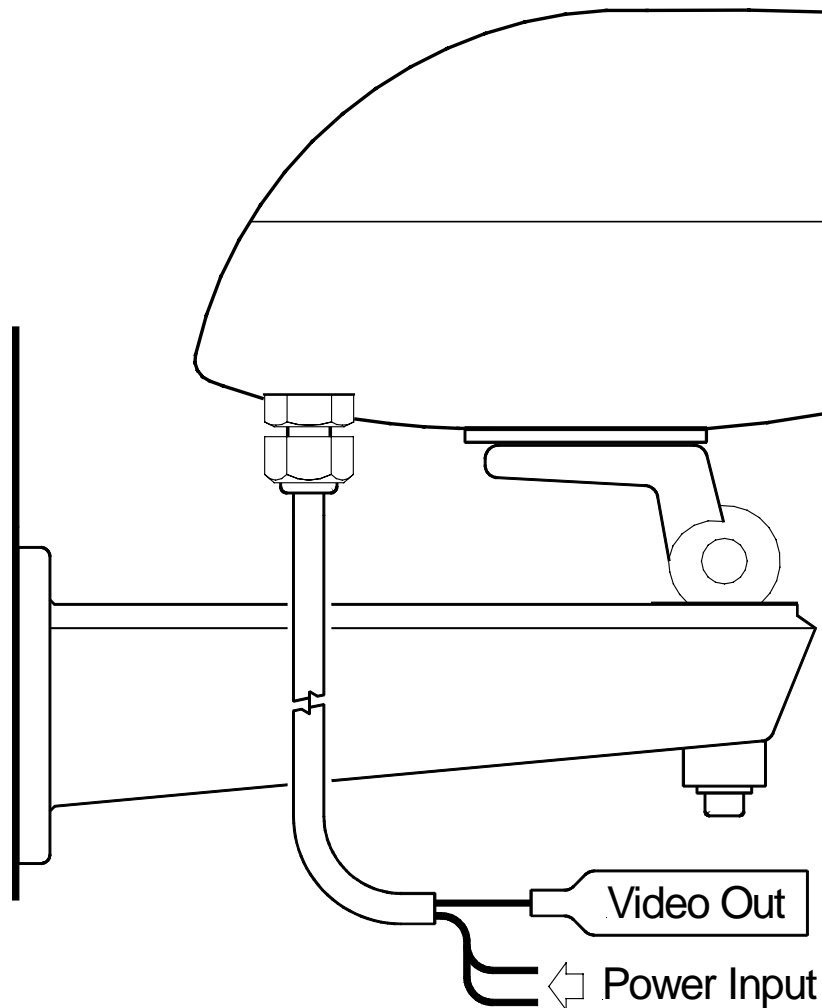


Figure 2 – 1
Camera I/O Connections

3. INPUT POWER CONNECTIONS

The camera unit is pre-connected with an electrically isolated power board for 24V ac or 12V dc operation with no wiring change or wiring polarity. See **Figure 3-1** on page 7 for wiring details.

Note:

Input voltage is 10.5VDC to 40VDC for DC input. The AC input range is 12VAC to 28VAC.

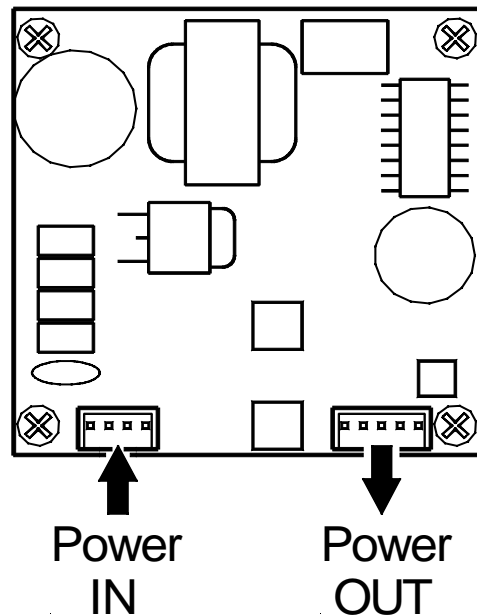


FIGURE 3 - 1
12VDC or 24VAC
Electrically Isolated Board

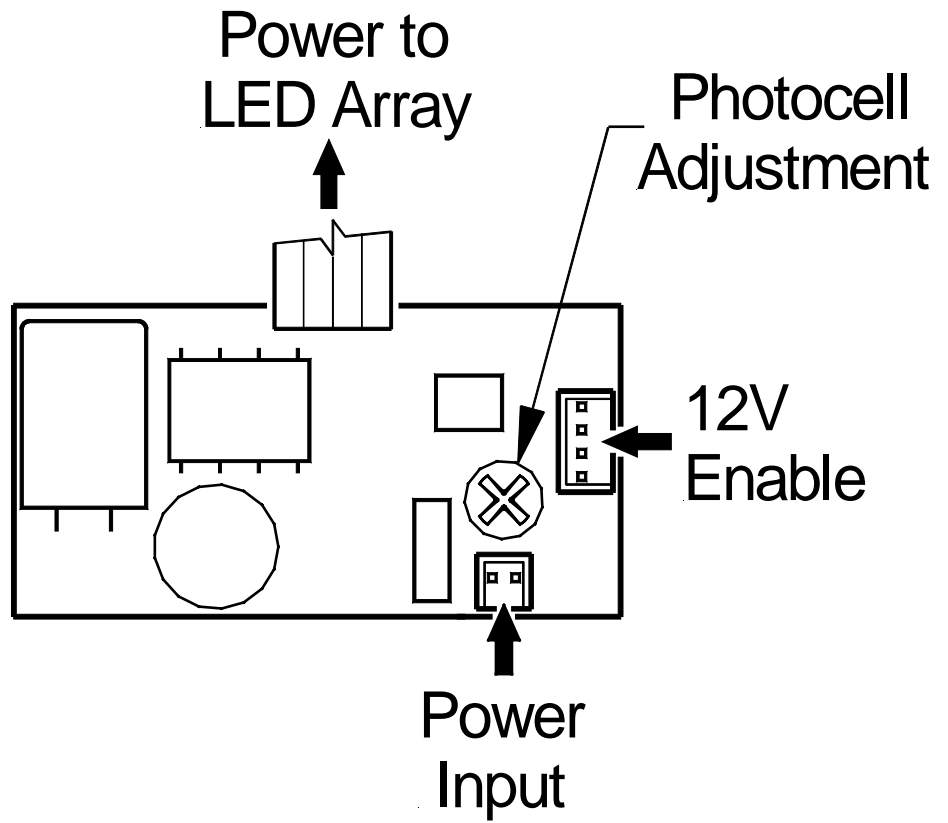


FIGURE 3 – 2
LED Array Power Board

4. CAMERA/ LED ARRAY ADJUSTMENTS

Focus and Zoom Adjustments

Loosen and tilt back the camera's top cover to access the lens for adjustment.

Step 3.1 - Loosen the lens setscrews for focus/zoom adjustments. See **Figure 4-1** on page 10.

Step 3.2 - The setscrew for **N** $\longleftrightarrow \infty$ is used for image focus.

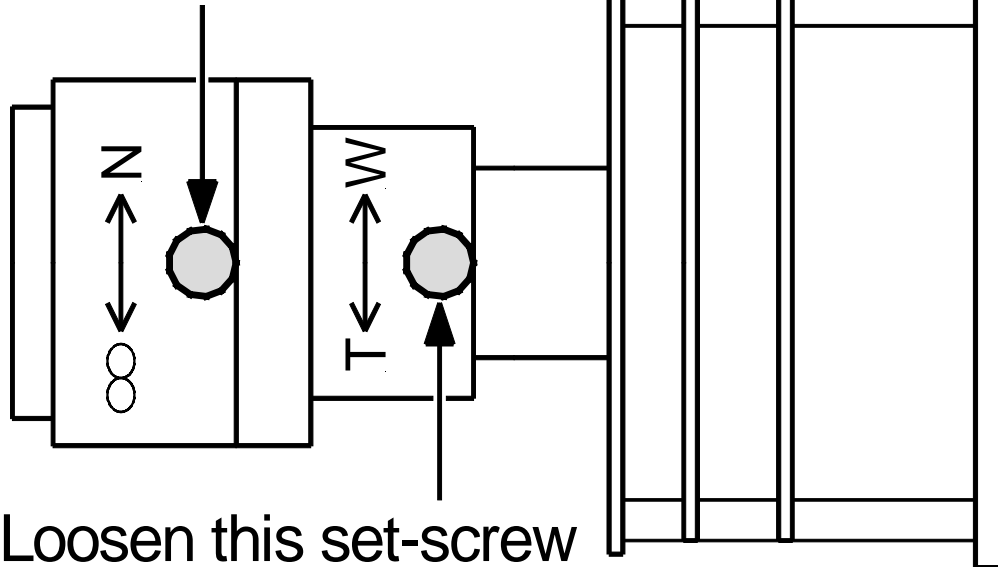
Step 3.3 - The setscrew for **T** \longleftrightarrow **W** is used for telephoto or wide-angle settings.

Step 3.4 - Re-tighten the setscrews after focus adjustments have been completed.

The LED Array brightness has been set at the factory before shipment.

For photocell brightness adjustment refer to **Figure 3-2** on page 8.

Loosen this set-screw
for Focus Adjustment



Loosen this set-screw
for Telephoto or Wide
Angle Adjustment

FIGURE 4 – 1
Focus and Zoom Adjustments

5. TROUBLESHOOTING GUIDE

| <i>PROBLEM</i> | <i>POSSIBLE CAUSE</i> | <i>LIKELY SOLUTION</i> |
|-----------------|--|---|
| No Video | <p>1. <u>Power Supply:</u> -Connections....</p> <p>-Voltage Range...</p> | <p>Check input power connections at the cable leads. Check for loose wires.</p> <p>If connected to DC, check input voltage range of 10.5 – 40V.</p> <p>If connected to AC, check input voltage range of 12 – 28V.</p> <p>Measure the voltage and current at the Input Power Cable. The current should be $>.02A$ and $<1.0A$.</p> |

| | | |
|---|------------------------------------|---|
| <p>No Video (cont'd.)</p> | <p>2. <u>Video Connections</u></p> | <p>Determine if wiring polarity at “Video Connector” terminal block is correct. Check the cable and BNC connector.</p> <p>If still no video, connect the camera directly to the monitor. Check the video signal. If okay, the problem is with the interconnections. If still no video, contact Extreme CCTV (see back cover for contact details).</p> |
| <p>Poor Picture</p> <p>Snowy Image</p> | <p>Poor Video Signal</p> | <p>Ensure the video cable is correctly matched and terminated with 75 ohms at each end. Make sure the video cables are similar types.</p> |

| Poor Picture | | |
|---|-------------------------------|---|
| Snowy Image (cont'd.) | Noisy Power Supply | Check connections. Relocate or replace the power supply. |
| Horizontal Scan Lines, Rolling Up or Down | Ground Looping on video cable | Check the coax cable shield is not touching ground, e.g. at couplings. Check video polarity. |
| Negative, scrambled, or faded image | Low voltage | Check voltage at the input power cable. Must be >10.5V dc or >12V ac. |

6. GENERAL SPECIFICATIONS

Power Consumption: 2W (max.) for both
V dc and V ac

Input Voltage: 10.5 - 40 dc,
12 – 28V ac,
isolated

Enclosure (housing): ABS/Nylon
(sealed to IP66)

Viewing Window: Tempered Glass

Dimensions: **H:** 3.35" (85mm)
W: 3.35" (85mm)
L: 7.10" (180mm)

Weight: 0.7kg (1.5 lbs.)

Subject To Change Without Notice.

Note:

Note:



Extreme CCTV®

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