



# **CZ-3041-1-36SS10S0AC Installation Guide**

**IG-019  
REV 1  
8-13-2019**

**READ THIS FIRST**



**1**

## **Check Receipt of All Components**

## 1.1 Component List

Before you proceed, be sure you have received all of the components listed below:

- Certified Zoom Camera
- Vibration Dampening Mount (attached to camera)
- Swivel Clutch Mount (attached to camera)
- Power and Control Box
- 2 x Allen Wrench; 5/32 & M4
- Female Snap Plug Crimp Terminals
  - 14-16awg (blue)
  - 18-22awg (pink)
- Bench Test Kit w/AC power cable



CZ-3041-1-36SS10S0AC Camera

If ordered, you may have also received:

- a) Any special mounting equipment (e.g. IVC Pole Mount Kit)

**NOTE:** Only one bench test kit is enclosed per order, it may be in a separate box

**NOTE:** Special mounting equipment may be in a separate box and may require additional materials for installation. (Consult the specific kit for more information)

## 1.2 Additional Installation Requirements

The following items are required to properly complete installation:

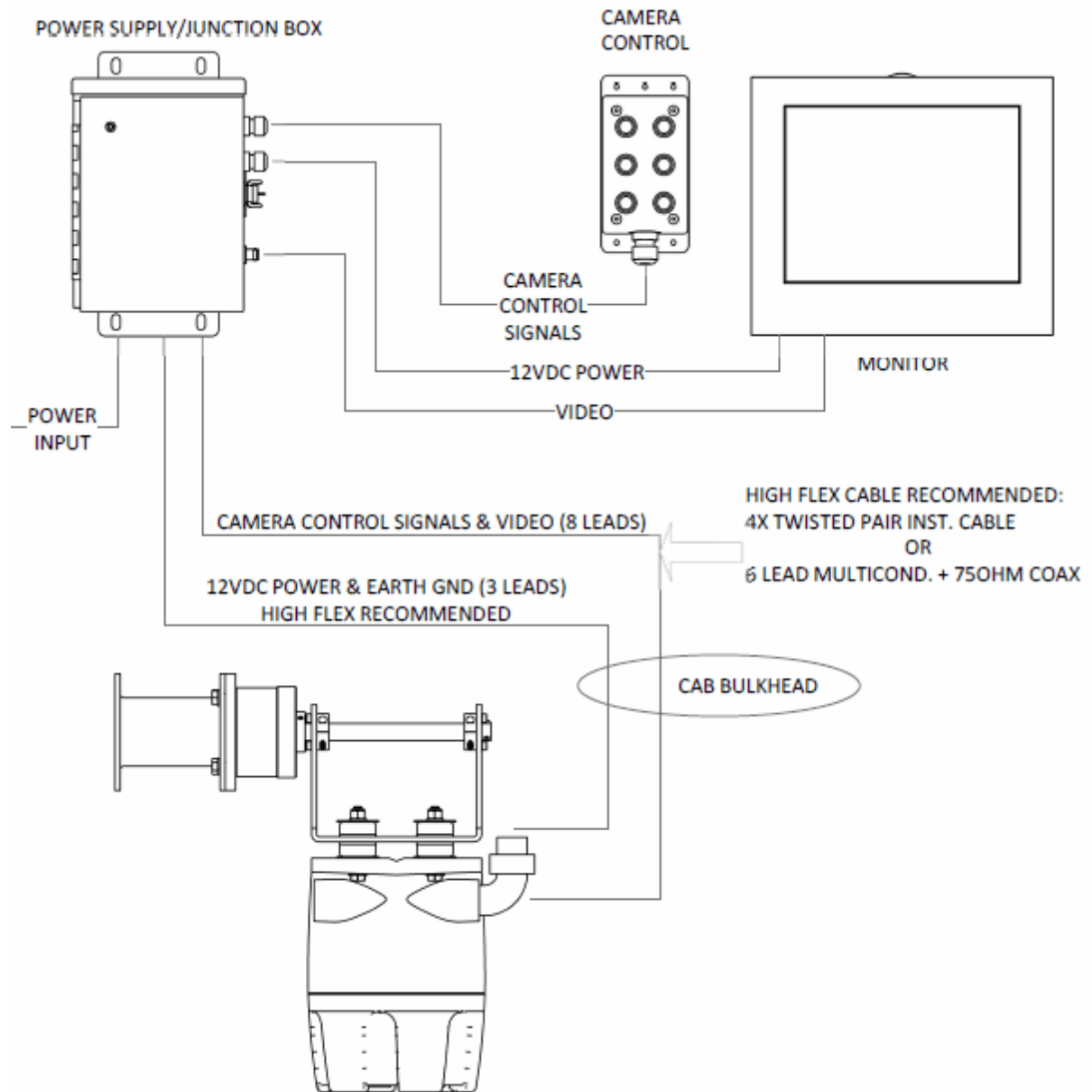
- A flathead screw driver, 1/8" wide or less, electronics type
- Camera enclosure lens cleaner
- Hex wrench
- Additional wiring to connect camera to control box



# 2

## Set Up and Bench Test Camera

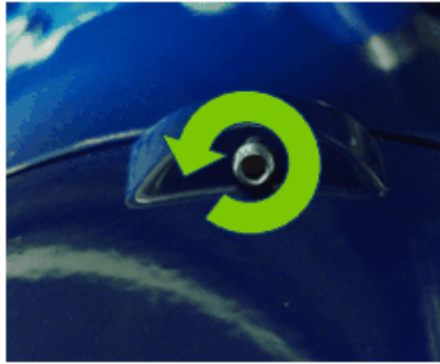
The diagram below illustrates the general wiring for the CZ-3041-1-36SS10S0AC system. The sections of this chapter provide additional detail on connecting the components of this system.



## 2.1 Remove Packaging and Inspect Components

To ensure the integrity of the camera during shipping certain packing materials are placed inside the camera to protect the lens and electronics. To remove these:

- Loosen the hex screw on the front of the camera. This locks the front of the camera enclosure in place.

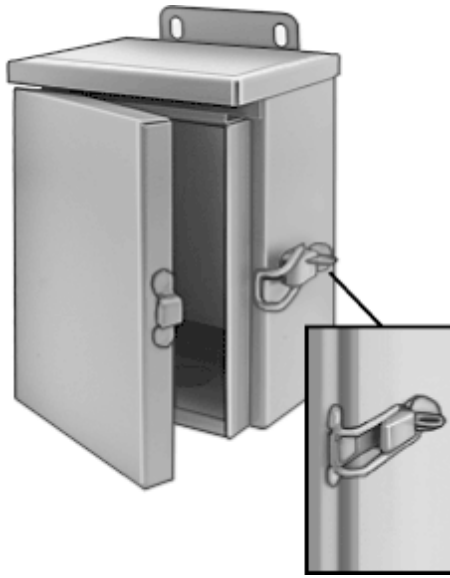


- Grip the front of the enclosure above the clear protective window and turn the entire front counter clockwise. Completely remove the front of the enclosure. Ensure that the body of the camera is secured.



- Remove the protective white lens cap and remove any binding material holding the internal wiring.
- Remove the plastic wrap covering the camera lens.
- IVC recommends that you apply a glass cleaner that includes rain repellent (such as Rain-X™) to the outer enclosure lens with a soft cloth. Follow the instructions provided by the glass cleaner's manufacturer for proper application.
- Replace the front of the enclosure once the Bench test is complete

Internal access to the control and power box is required for the bench test and system assembly. Open the control and power box by releasing the padlockable latch to the door to the enclosure.

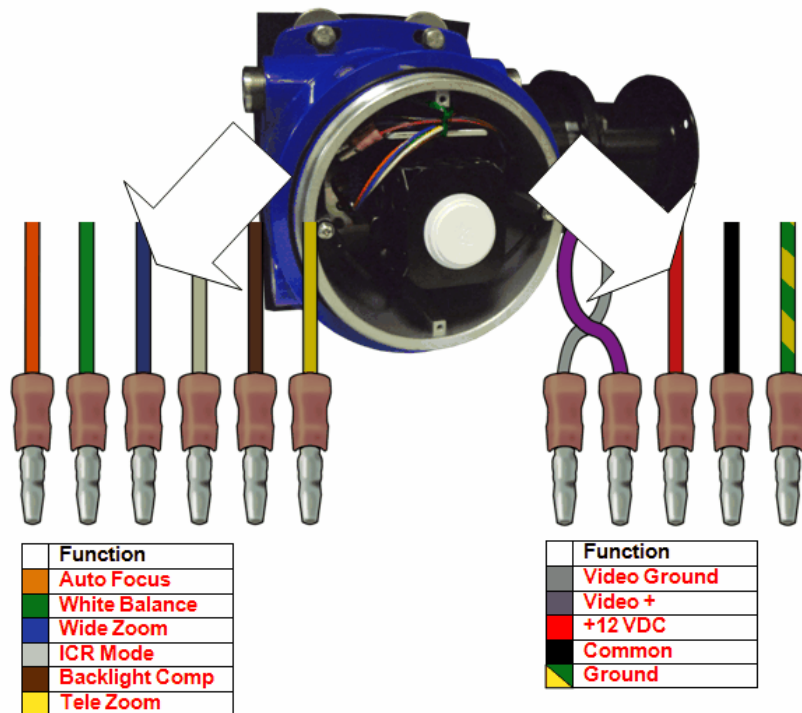


If any damage occurred during shipping please call our support line (617-467-3059) immediately for assistance.

## 2.2 Connect Camera to Control Box

This camera requires 12 VDC directly to operate. This is provided through power and control box. The camera contains two wiring bundles, one coming from each side. The left-most bundle provides camera controls such as zoom and focus controls. The right-most bundle provides power to and video from the camera. The cables made are to be run out the four available 3/4" NPT conduit hubs. Cable the camera to the control box as described below.

1. Ensure that the camera enclosure is open. See previous section for details.
2. Ensure that the monitor and control box is open. See previous section for details.

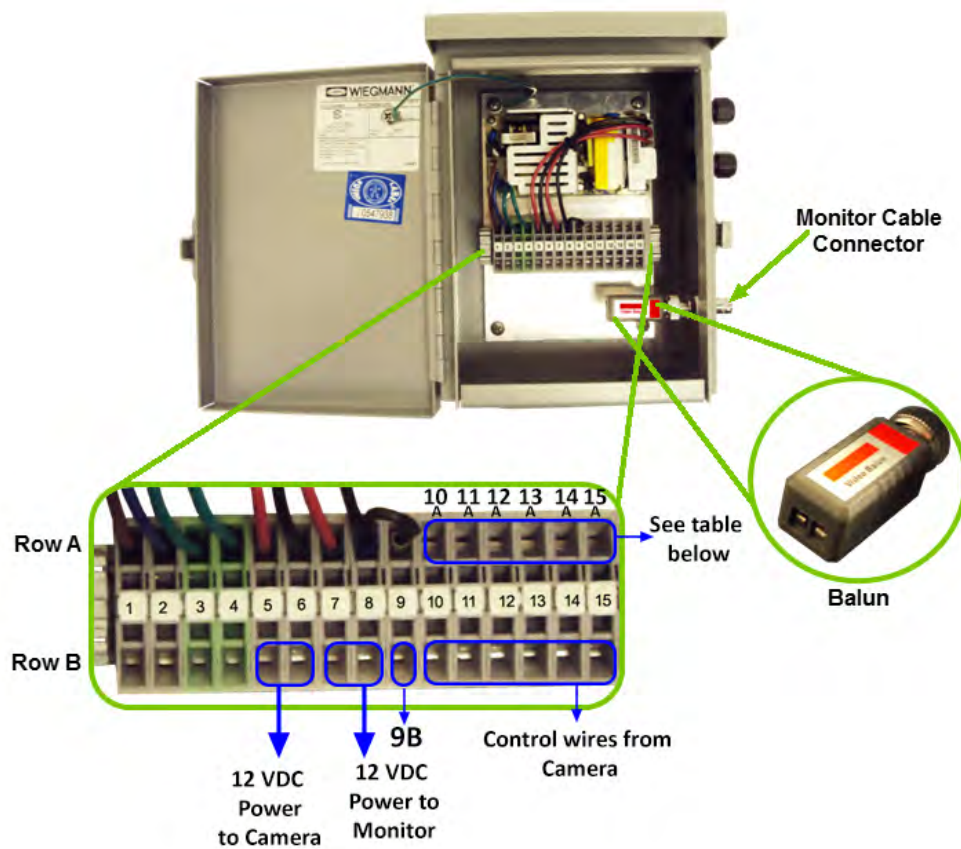


**NOTE:** To connect the leads, insert the small screw driver in the upper “D” shaped hole and place the lead into the lower circular hole.

3. Cable the camera control signals in the left-most cable bundle to the terminal blocks in the monitor enclosure as follows:
  - a. Connect the Tele Zoom wire (yellow in the camera) to Control Terminal block position 10B.
  - b. Connect the Wide Zoom wire (blue in the camera) to Control Terminal block position 11B.
  - c. Connect the Auto Focus wire (orange in the camera) to Control Terminal block position 12B.
  - d. Connect the ICR Mode wire (white in the camera) to Control Terminal block position 13B.
  - e. Connect the White Balance wire (green in the camera) to Control Terminal block position 14B.



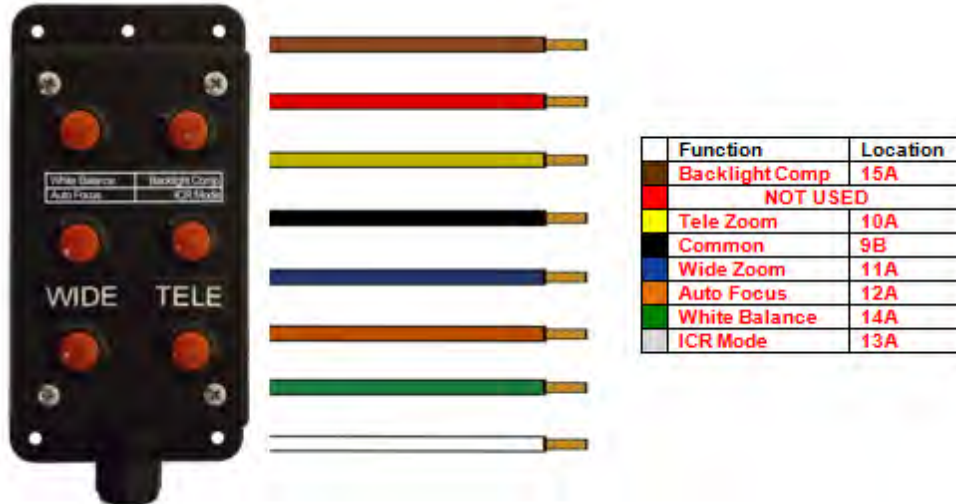
- f. Connect the Backlight Compensation wire (brown in the camera) to position Control Terminal block 15B.
- 4. Connect the camera power and video signal located in the right-most wiring bundle to the appropriate locations in the control box. The powering positions are located in positions 5B to 6B on the control box's terminal block. The video signal connects to the grey Balun located on the side of the control and power box. See diagram below.
  - NOTE:** The Balun connected to the side of the control box contains two labeled input locations. The Balun may need to be spun upside-down in order to read these locations. To connect the leads, loosen the screws on the bottom of the Balun, insert the lead and re-tighten the screw to secure the wire.
  - g. Connect camera power Common (black wire in the camera) to position VDC Terminal 6B.
  - h. Connect camera power +12 VDC (red wire in the camera) to position VDC Terminal 5B.
  - i. Connect camera ground (green wire in the camera attached to enclosure) to position VDC Terminal 4B.
  - j. Connect camera Video + (purple wire in the camera) to position Video Terminal Balun+.
  - k. Connect camera Video - (light gray wire in the camera) to the position Video Terminal Balun-.



## 2.3 Connect Controller

The CZ-3041-1-36SS10S0AC system includes a 6-button control panel to control camera functions. The control panel is pre-wired. Terminate the control panel cable at the control box terminal box as indicated below.

1. Connect the yellow wire to position 10A.
2. Connect the blue wire to position 11A.
3. Connect the black wire to position 9B.
4. Connect the white wire to position 13A.
5. Connect the green wire to position 14A.
6. Connect the brown wire to position 15A.
7. The red wire is not used.

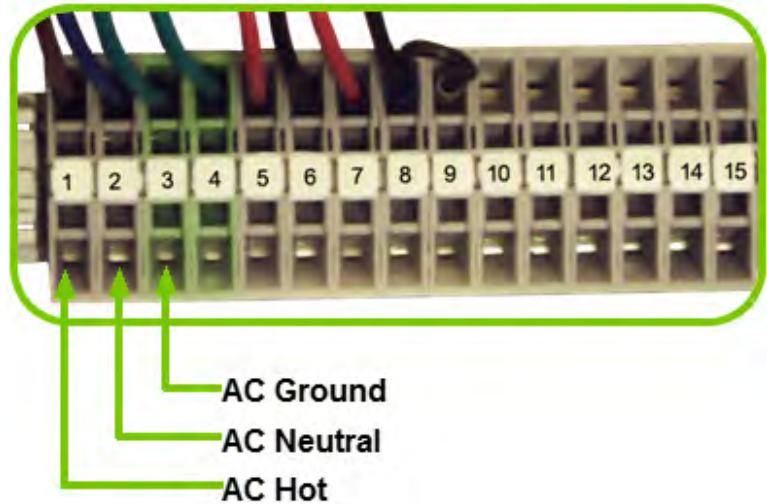


CZ-3041-1-36SS10S0AC Control Panel

## 2.4 Connect Power Cable

This camera assembly requires 100-240 VAC. Connect the power cable provided with the Bench Test kit to the monitor enclosure as described below.

1. If not already open, open the Control Box as described in [Section 2.1](#).
2. To connect the leads, insert the small screw driver in the upper "D" shaped hole and place the lead into the lower circular hole.
3. Connect the Hot lead to the terminal block position 1B.
4. Connect the Neutral lead to the terminal block position 2B.
5. Connect the Ground lead to the terminal block position 3B.



Resecure the monitor enclosure lid. Apply power to the system and observe video on the monitor and proper operation of the controls.

## **2.5 Bench Test Completed**

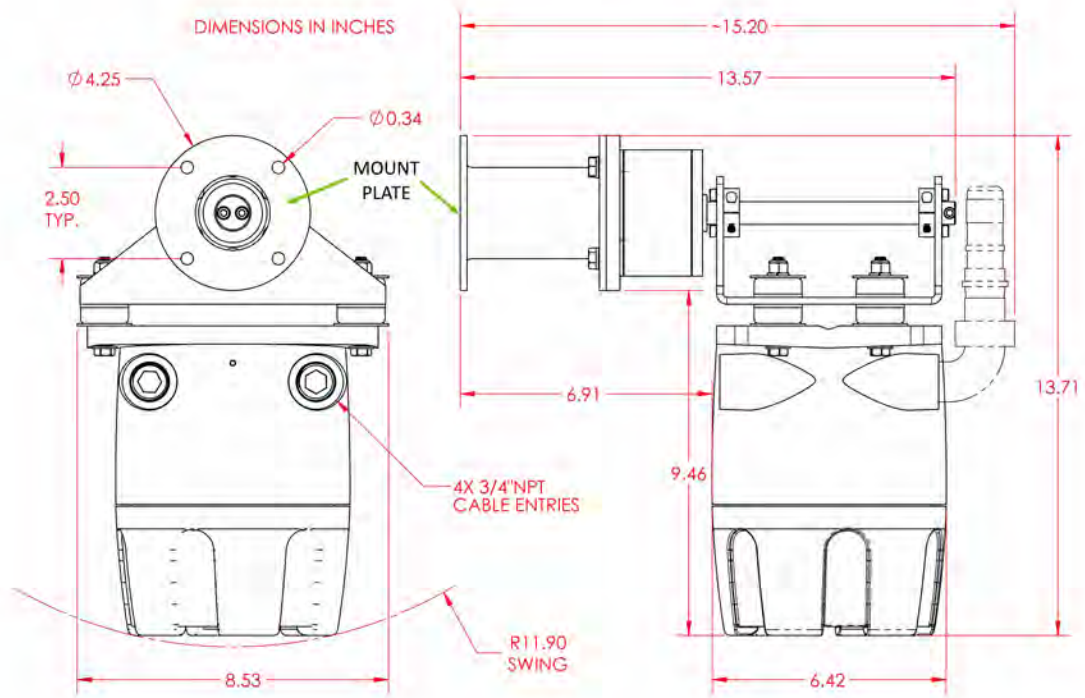
This concludes the bench test.

# 3

## Install Components

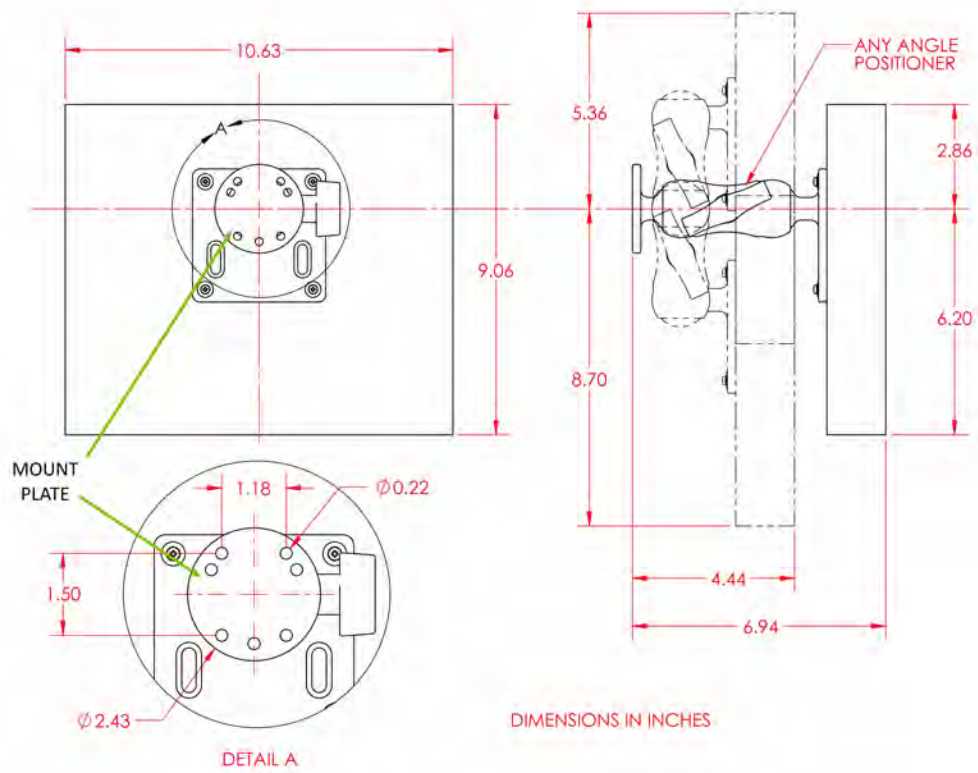
### 3.1 Mount Camera

The camera should be mounted to a rigid surface. The mounting footprint and hole pattern are illustrated in the drawing below.



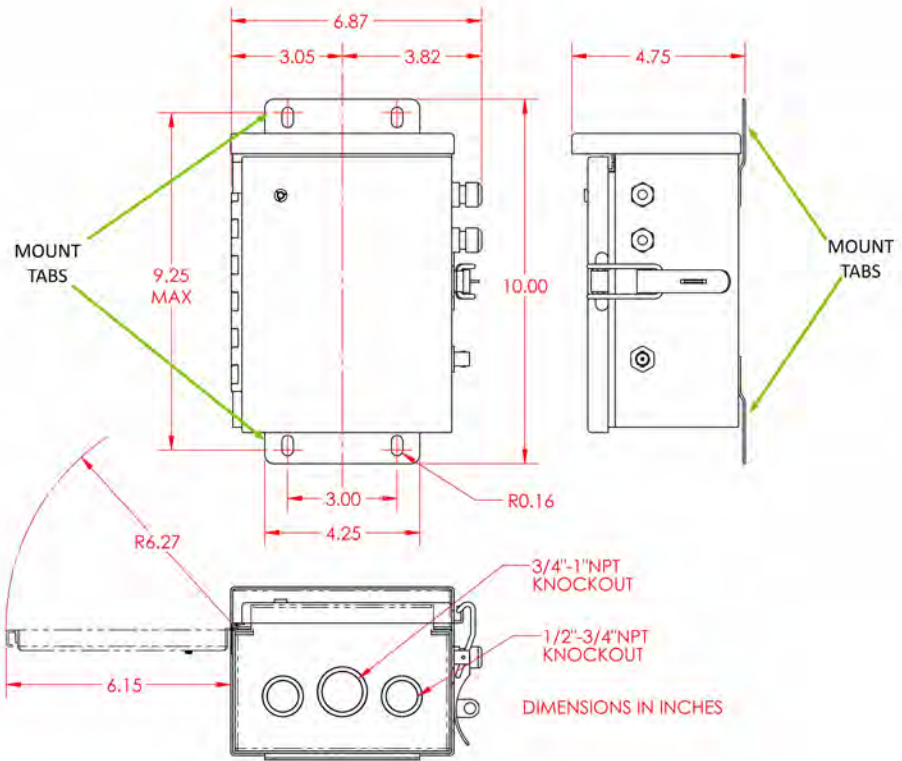
### 3.2 Mount Monitor

If the monitor option was purchased with this system. Mount to a rigid surface as indicated in the drawing below.



### 3.3 Mount Control Box

Mount the system control box to a rigid surface as indicated in the drawing below.

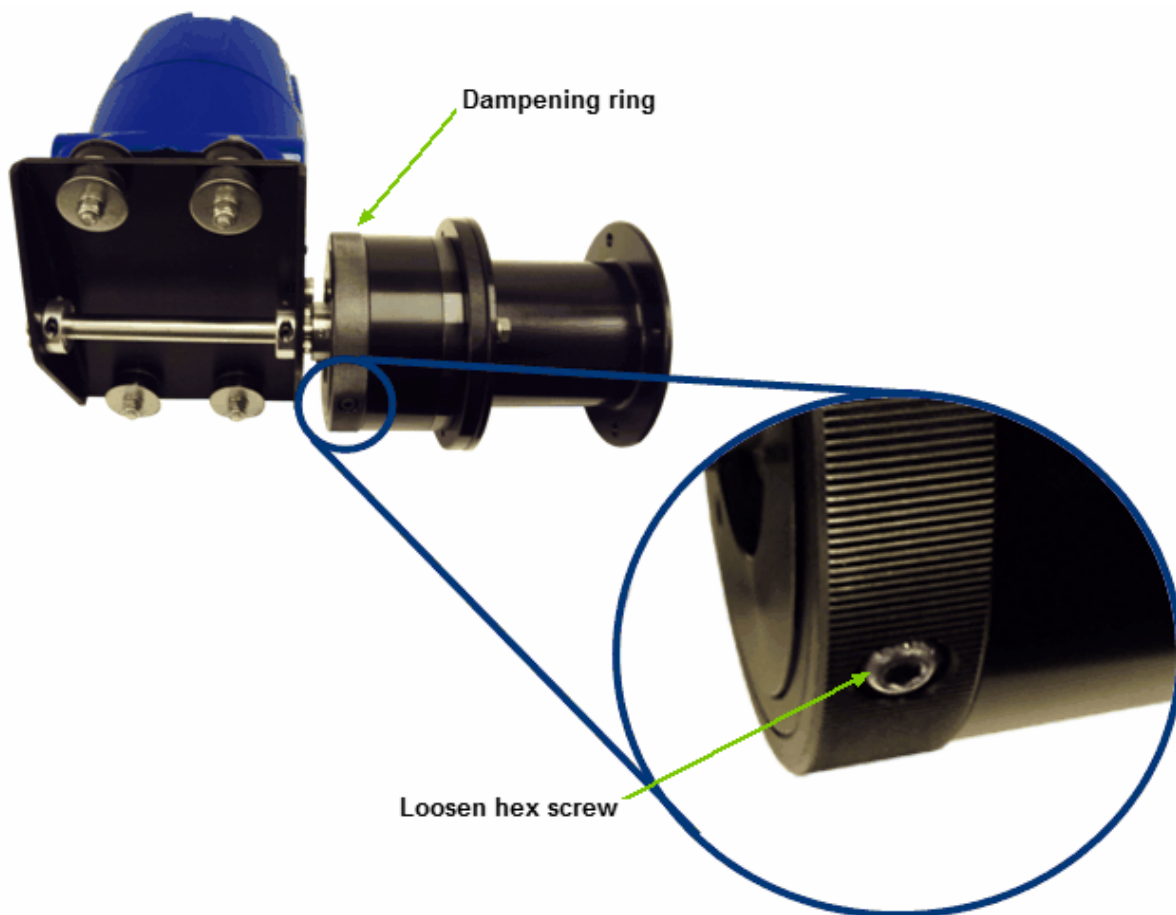




### 3.4 Adjust Mounting Clutch

This knurled ring of the mounting clutch provides adjustment of the degree of swing dampening. It should be set to a low setting and increased as required. This will be dependent on the rate of movement of the mounted surface and the amount of rotational drag induced by electrical cabling connections. A low setting provides a "free-swinging" coupling, whereas a high setting will provide stiff rotational resistance.

To adjust the dampening, loosen the two hex locking screws located on opposite sides of the dampening ring using an M4 hex key. Once the desired dampening has been reached, lock the setting by tightening the locking screws.



### 3.5 Camera Power

In some circumstances, IP cameras may require an occasional power interruption to reinitiate the camera software after installation. Ideally, the power for each installed camera should be routed through a permanent and conveniently accessible power switch.

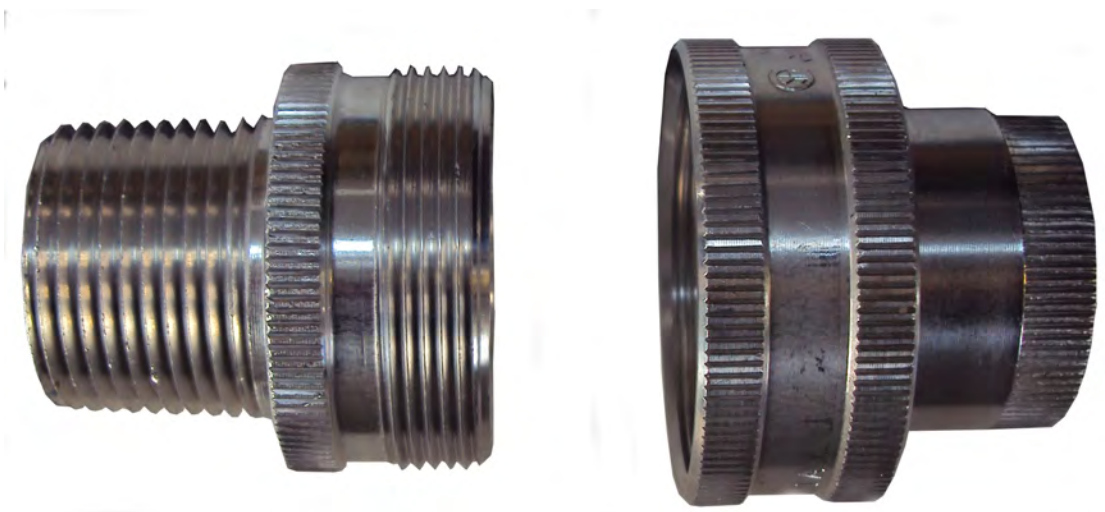
### 3.6 Cabling

The camera housing has four 3/4 inch NPT openings.



CZ-3041-1-36SS10S0AC Camera NPT

Included with the camera are a 3/4 inch to 1 inch and 1 inch to 3/4 inch NPT adapters. Cable glands are NOT included, so you must provide your own. Contact your IVC sales representative or [IVC Support](#), if you would like IVC to provide a cable gland for your camera. Select the conduit adapter that best suits your installation requirements.



NPT Adapters

Use the cable terminal plugs provided with the Accessories bag shipped with the camera to create a [cable from the camera to the monitor/control box](#) and a [cable from the monitor/control box to the controller](#) as described in earlier chapters.



**CZ-3041-1-36SS10S0AC Accessories Bag**



# 4

## Support Information

If you experience any problems please call us (617-467-3059) or email [support@ivcco.com](mailto:support@ivcco.com).

Please note that no equipment (in-warranty or out-of-warranty) should be sent back to IVC without an Return Material Authorization (RMA). Contact IVC support or your IVC sales representative for an RMA.

**CAUTION:** All installations must insure the camera assembly is mounted securely to ensure that it cannot become dislodged during high wind, accidental bumping or other such incidents. All wiring must comply with NEC, NFPA, and local codes.

**NOTE:** IVC is not liable for direct or consequential damages resulting from use of this product and IVC makes no guarantees regarding results of intended and unintended use of the product.



**5**

# Appendix A - Camera Specifications

## CZ-3041-1-36SS10S0AC Installation Guide

<b>Imager</b>	1/4" Sony ExView CCD
<b>Shutter</b>	1 to 1/10,000 seconds
<b>Minimum Illumination</b>	1.4 lx (F1.6, 50IRE)
<b>Exposure</b>	Auto
<b>White Balance</b>	Auto, Manual
<b>Iris</b>	Auto
<b>Focus</b>	Auto and Manual
<b>Backlight Compensation</b>	Auto and Manual
<b>ICR Mode</b>	Auto and Manual
<b>Zoom Ratio</b>	36x optical zoom
<b>Focal Length</b>	3.4 to 122.4 mm
<b>F-number</b>	1.6 to 4.5
<b>View Angle</b>	1.7° to 57.8°
<b>Connection</b>	1.0Vp-p; 75Ω on BNC
<b>Resolution</b>	640 x 480
<b>Frame Rate</b>	30 FPS
<b>Weight</b>	

**Camera** 29.8 lbs.

**Monitor** 5 lbs.

**Control Box** 6.43 lbs

**Controller** 2.6 lbs

**Voltage Required** 12 VDC

**Operating Temperature** 0° to 50° C

### Dimensions

**Camera** 8.3" H x 14.2" W x 14.0" D

**Monitor** 9.06" H x 10.63" W x 6.94" D (mount arm extended)

**Control Box** 10.00" H x 6.87" W x 4.75" D

**Controller** 4.61" H x 2.32" W x 1.10" D

**Mount** Crane Mount Standard

**Camera Rating** Class I Division 1, Groups B, C & D,  
Class II Division 1, Groups E, F & G,  
Class III Division 1, Groups E, F & G,  
AEx d IIC T6, ATEX EXd IIC  
NEMA Type 4X, IP66