



ZX55 Infrared Imager

ZX55 Series



BOSCH

en Quick Installation Guide

Table of Contents

1	Safety	4
1.1	Important safety instructions	4
1.2	Safety precautions	5
1.3	Important notices	5
<hr/>		
2	Description	6
2.1	Unpacking	6
2.1.1	Parts List	6
2.1.2	Items Required for Installation	6
2.2	System Requirements	6
<hr/>		
3	Initial Preparations	8
3.1	Mechanical Specifications	9
3.2	Camera Bracket Mount Setup	10
3.2.1	Installing a Wall Mount	12
3.3	Adjusting Pan/Tilt Settings	13
3.4	Adjusting the Camera Lens	14
3.5	Adjusting the Photocell/IR Power Settings	16
3.6	Assembling the Camera	17

1 Safety

1.1 Important safety instructions

Read, follow, and retain all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operating the unit.

1. Read these instructions.
2. Keep this instruction.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. Do not block any ventilation openings. Install in accordance with manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
8. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the power where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in a way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, does not operate normally, or has dropped. When servicing, power shall be disconnected.”

1.2 Safety precautions

**DANGER!**

High risk: This symbol indicates an imminently hazardous situation such as “Dangerous Voltage” inside the product. If not avoided, this will result in an electrical shock, serious bodily injury, or death.

**WARNING!**

Medium risk: Indicates a potentially hazardous situation. If not avoided, this could result in minor or moderate bodily injury.

**CAUTION!**

Low risk: Indicates a potentially hazardous situation. If not avoided, this could result in property damage or risk of damage to the unit.

1.3 Important notices

Camera grounding - For mounting the camera in potentially damp environments, ensure to ground the system using the ground connection of the power supply connector (see section: Connecting external power supply).

U.S.A. models only - *Section 810 of the National Electrical Code, ANSI/NFPA No.70*, provides information regarding proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Permanently connected equipment - Incorporate a readily accessible disconnect device in the building installation wiring.

Power lines - Do not locate the camera near overhead power lines, power circuits, or electrical lights, nor where it may contact such power lines, circuits, or lights.

2 Description

2.1 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.

2.1.1 Parts List

These items are supplied with the unit:

- ZX55 Camera Unit with the mounting bracket
- Quick Installation Manual
- Plastic bag containing two Allen keys for accessing the Camera's electronics
- Software CD (IP models only)

2.1.2 Items Required for Installation

The installer must supply these items:

- Mounting tools
- PC/Laptop with RJ45 Ethernet port (for IP models only)
- Power supply

2.2 System Requirements

- Computer with Windows 2000/XP operating system, network access and Internet Explorer (IE) Web browser version 6.0 or later or
- Computer with Windows 2000/XP operating system, network access and reception software, for example VIDOS, BVMS or DIBOS 8.0 or
- MPEG-4 compatible hardware decoder from Security Systems (such as VIP XD) as a receiver and a connected video monitor

The minimum PC requirements are:

- Operating platform: A PC running Windows 2000 or Windows XP with IE 6.0
- Processor: 1.8 GHz Pentium IV
- RAM memory: 256 MB
- Video system: 128 MB video memory, 1024 x 768 display with 24-bit color
- Network interface: 100-Base T
- DirectX: 9.0b

Ensure the graphics card is set to 16-bit or 32-bit color depth and that Sun JVM is installed on your PC. To play back live video images, an appropriate MPEG ActiveX must be installed on the computer. If necessary, install the required software and controls from the product CD provided. If you need further assistance, contact your PC system administrator.

3 Initial Preparations

1. Determine the operating voltage at the installation site. The camera's Voltage Regulator Board accepts 12 VDC or 24 VAC input without change to internal connections.
2. Determine the optimum mounting location for the camera. See *Section 3.2 Camera Bracket Mount Setup, page 10*.
3. All cameras have been tested and pre-focused with telephoto setting as factory default prior to shipment. If any adjustment needed, it is advisable to check the camera's operation before installation
4. Install Bosch Extreme Series IP Camera Software on a PC. (IP models only)

Guidelines

- Refer to *Section 3.2.1 Installing a Wall Mount, page 12* for installation instructions.
- It is important that these steps are followed in numerical order.
- It is important to follow proper safety guidelines when installing this product.

3.1 Mechanical Specifications

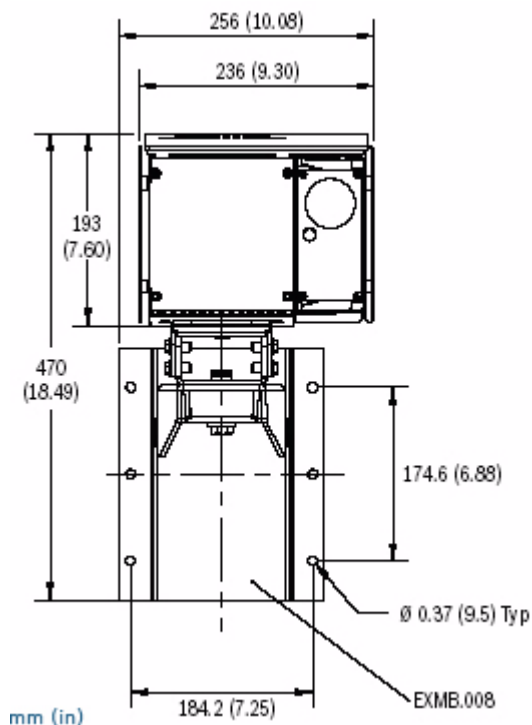


Figure 3.1

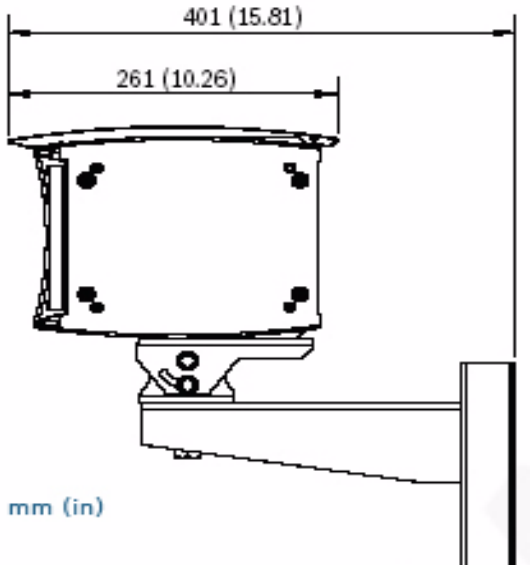


Figure 3.2

3.2 Camera Bracket Mount Setup



WARNING! IMPORTANT MOUNTING INSTRUCTIONS

This apparatus must be securely attached to the wall in accordance with this installation instructions. Failure to follow installation instructions may result injury or death.



CAUTION! Medium Risk:

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

Select a suitable location that protects the camera from accidental damage, tampering and environmental conditions exceeding the specifications of the camera.

Follow these mounting guidelines:

1. Locate the camera such that it cannot be easily interfered with, either intentionally or accidentally.
2. Select a **smooth, flat mounting surface** to ensure proper sealing. The surface must also support the combined weight of the camera and mounting hardware under all expected conditions of vibration and temperature. Recommended mounting height is at least 4 m (13 ft), however optimal conditions will vary with the specific installation environment.

Hardware Requirements

- EXMB008 bracket (included with wall mount package)
- Six (6) lag bolts, Ø 1/4 in. (M7) diameter x 1-1/2 in. (38 mm) long
- 1/2 in. (12 mm) flat washer

Tools Required

- Drill
- 7/32 in. (6 mm) drill bit
- Stud finder
- Socket driver
- 9/16 in. (14 mm) socket

Depending on the type of mounting surface (brick, wood, etc.), it may be necessary to pre-drill the holes for the mounting screws. It is recommended that these holes be marked using the housing as a drill template and then drilled separately to ensure no burrs or debris fall into the housing.

Ensure the power and video cables are not crimped or stressed after the camera has been mounted.

Installation should be performed by skilled personnel following the instructions for a wall mounting.

3.2.1 Installing a Wall Mount

The camera must be mounted securely using the mounting bracket included with the camera.

The Camera has been evaluated for wall mounting using the following wood screws secured into a 2x4 stud under 1/2 in. drywall.

- Wood screws, Ø 1/4 in. (M7) diameter lag, 1-1/2 in. (38 mm) long, 9 TPI (0.35 TPMM), with 1/2 in. (12 mm) head
- 1/2 in. (12 mm) flat washer.



NOTICE!

The camera has not been evaluated for safety requirements using other mounting kits.

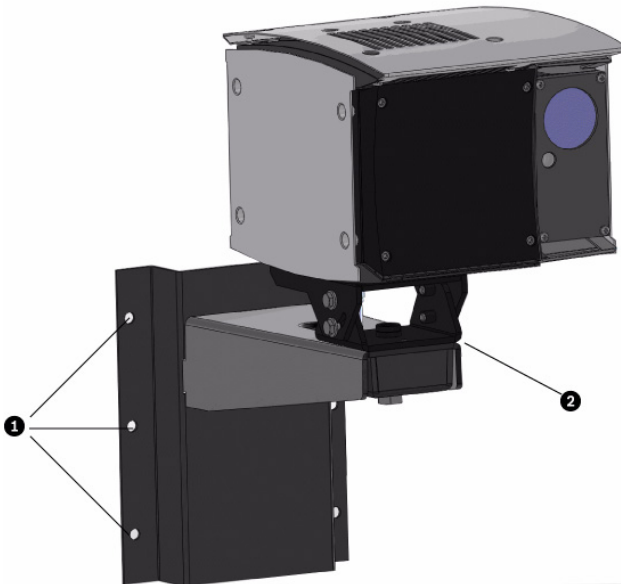


Figure 3.3 ZX55 Series camera and mount

1	Wall mount screw locations (6)
2	Adjustable Mounting Bracket (Pan/Tilt)

Installation Instructions

1. Locate a stud in the wall and mark the outside edges of stud.
2. Using the wall mount bracket as a template, align the mounting hole with the center of the stud.
3. Mark the point on the wall in the center of the hole where mounting screw will be positioned.
4. Remove the wall mount bracket and drill a pilot hole at the marked point .
5. Align the wall mount bracket mounting hole with the hole drilled in the ceiling/wall.
6. Using a 9/16 in. (14 mm) socket and driver, secure the wall mount bracket by screwing the 1/4 in. (M7) diameter bolt with 1/2 in. (12 mm) washer securely into the stud.
7. Use an additional \varnothing 1/4 in. (M7) diameter bolt and a 1/2 in. (12 mm) washer to secure the remaining mounting holes.
8. Installation is complete.

3.3 Adjusting Pan/Tilt Settings

Tilt Adjustment

1. Loosen the four (4) Tilt adjustment screws on the mounting bracket.
2. Adjust the camera to desired angle.
3. Tighten the setscrew

Pan Adjustment

1. Loosen the Pan adjustment screw on the mounting bracket.
2. Adjust the camera to desired angle.
3. Tighten the setscrew

3.4 Adjusting the Camera Lens

Follow these steps to adjust the focus:

1. Using the supplied Allen key, loosen the Cap Screws (item 1, below) that secure the side cover to the camera housing.

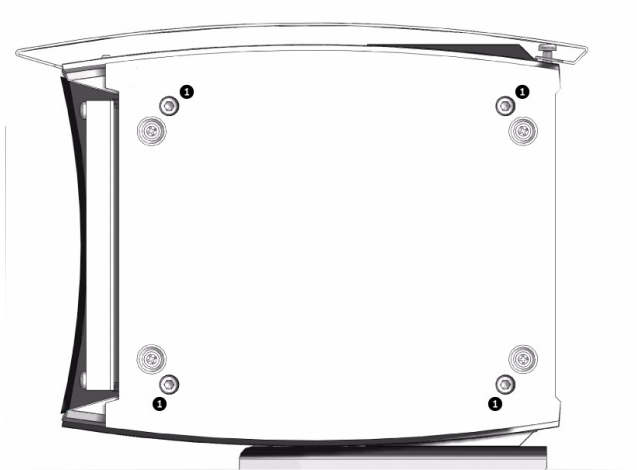


Figure 3.4 Location of cap screws

2. Carefully remove the side cover from the camera housing to expose the camera.
3. Loosen the lens varifocal/focus locking knobs.
4. Zoom in or zoom out the image through turning the varifocal knob, and focus the image using focus knob.

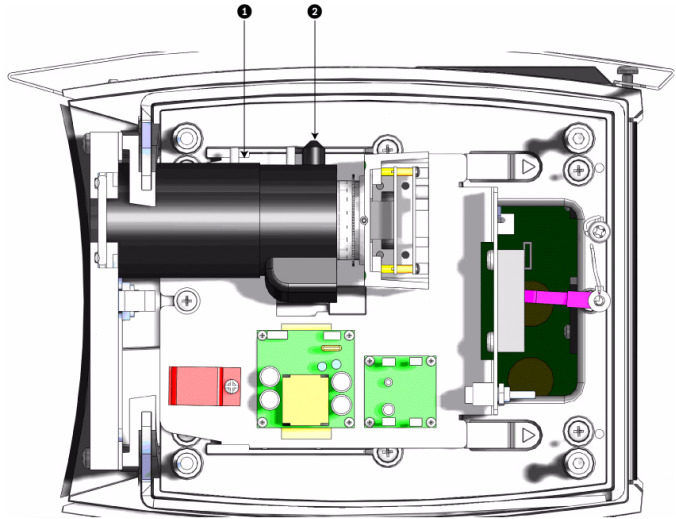


Figure 3.5 Focal Length and Focus adjustments

1	Focal Length adjustment
2	Focus adjustment

5. Tighten the knobs when the correct position for zoom and focus are found.

NOTICE!

Use Infra-Red Pass filter to cover the lens during focusing to simulate low light conditions on scene for correct 24-hour focusing. For camera with manual iris lens, the camera should be focused with the lens iris fully opened to simulate the worst possible depth of field. Using a Infra-Red Pass filter will ensure the iris is fully open for correct setup and adjustment. Note that statement above is applicable only for Day/Night or IR version cameras.



3.5 Adjusting the Photocell/IR Power Settings

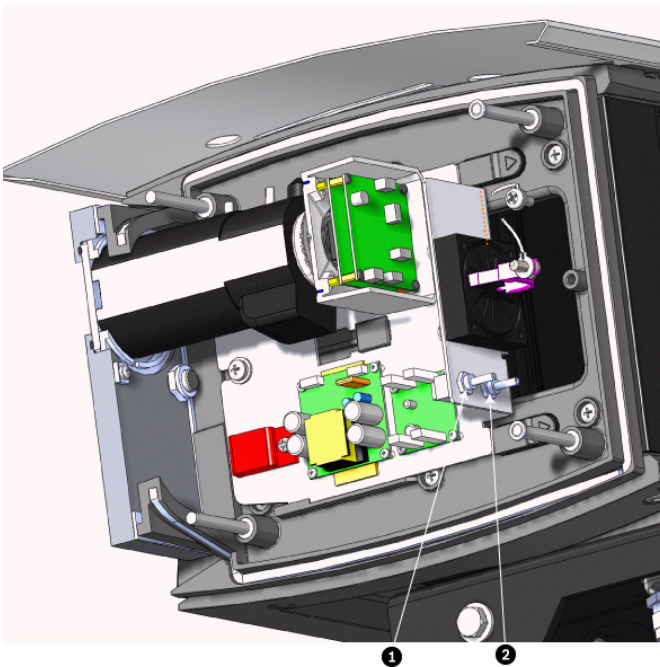


Figure 3.6 Photocell and IR intensity adjustments

1	Photocell sensitivity adjustment
2	IR Intensity adjustment

- For Photocell adjustment, adjust PC pot to match the lighting condition.
 - Adjust the pot CW to shift the D->N and N->D switch points to lower light levels, resulting in night mode engaging in a darker environment and switching back to day mode earlier (darker environment).
 - Adjust the pot CCW to shift the D->N and N->D switch points to higher light levels, resulting in night mode engaging in a brighter environment and switching back to day mode later (brighter environment).

2. For IR power adjustment (the default IR intensity is set to maximum):
 - Adjust the pot CW to increase the IR intensity.
 - Adjust the pot CCW to decrease the IR intensity.

3.6 Assembling the Camera

Ensure all wires are properly connected, all holes are sealed against moisture penetration and all mounting screws are tight.

1. Carefully attach the camera's side cover to its main body. Use the supplied Allen key.
2. Tighten the camera's adjustable mounting bracket after the desired viewing angle has been determined.
3. Power-up the camera and check its operation.

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