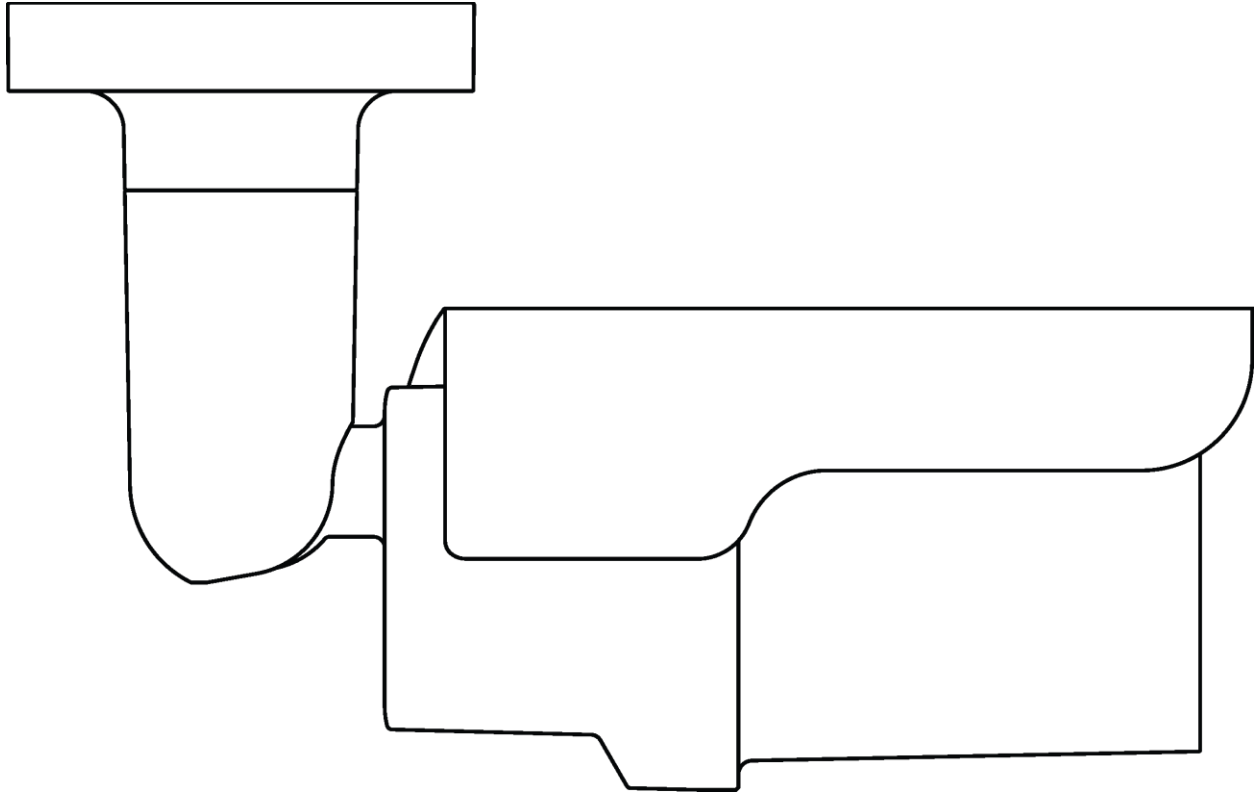


R545 Bullet Camera

User Manual – Engineering Draft



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Date	Revision	Notes
05/07/2025	1.0	Initial Draft

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body or nearby persons.

Industry Canada statement:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference
- (2) This device must accept any interference, including interference that may cause undesired operation of the device

Cet appareil contient des émetteurs / récepteurs exempts de licence qui sont conformes au (x) RSS (s) exemptés de licence d'Innovation, Sciences et Développement économique Canada. L'opération est soumise aux deux conditions suivantes:

- (1) Cet appareil ne doit pas causer d'interférences
- (2) Cet appareil doit accepter toute interférence, y compris les interférences pouvant provoquer un fonctionnement indésirable de l'appareil

Radiation Exposure Statement:

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps.

EU Importer/Distributor: Schillingweg 64, 2153 PL Nieu-Vennep, Amsterdam, The Netherland

Prerequisites

Before you can register a Rhombus camera, you will need:

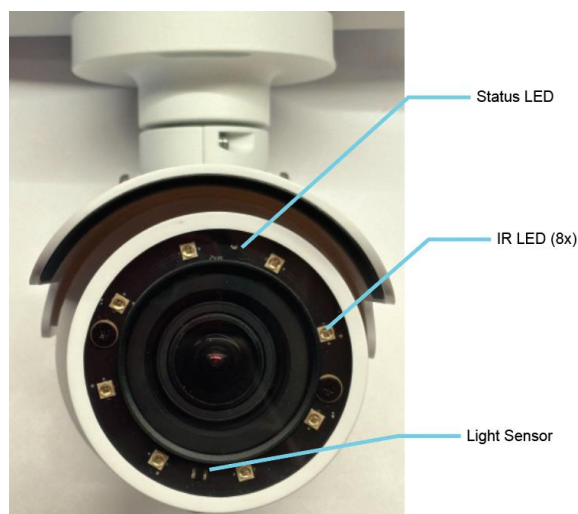
- 802.3at compliant injector or switch
- Rhombus Console Account
- Mobile phone with downloaded Rhombus App (Android or iOS)
- Camera connected to network and power (PoE+)

R545 Overview



Included in the box:

- R545 Camera
- Waterproofing Kit
- (5) Wall screws and anchors (wood, drywall, masonry)



Installation

Waterproofing

Following the waterproofing guidelines is essential to ensure your product is covered under the Rhombus End User License Agreement and Hardware Warranty. Failure to complete the waterproofing steps as outlined in the product manual may void product warranty and limit our liability for related damages. For more information, please refer to our EULA.

Use the included accessories to waterproof the cable connection, installing them as shown below. Ensure that the O-ring is in place (and not twisted) between the pigtail and the housing and lock the housing and pigtail together with a quarter-turn. It's best to use an Ethernet cable without a boot or strain relief, to fit easily within the housing.



If mounting the device outdoors and PoE cable is not routed through the mounting surface or a junction box, ensure that the cable path contains a drip loop to prevent water ingress.

For more information on drip loops and preventing water damage, please visit:
<https://support.rhombussystems.com/hc/en-us/articles/360020141532-Preventing-Water-Damage>

Connecting the device

The R545 should be powered by a PoE 802.3at (also referred to as PoE+) compliant source. To complete registration, a camera needs power and should be connected to a local network that has access to the internet.

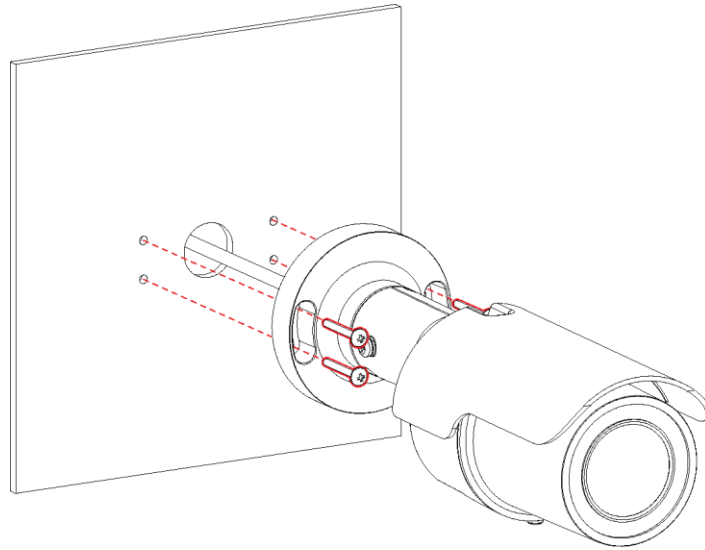
Connect the PoE cable to the device. Verify that the camera is receiving power and a network connection via the LED indicators on the pigtail attached to the camera.



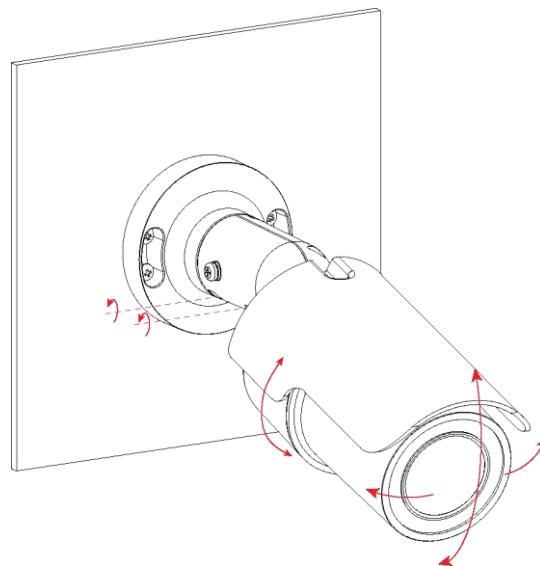
- Ensure the switch has power.
- Configure the network to comply with Rhombus requirements. Please reference the Rhombus Network Setup Guide for more details on network configuration:
<https://support.rhombussystems.com/hc/en-us/articles/6319246804237-Network-Setup-Guide>
- Connect the camera to an 802.3at compliant PoE switch or injector for power and ethernet. The camera will automatically boot up and you can begin the registration process.

Mounting the Camera

Use the camera as a mounting template to pre-drill pilot holes into the desired mounting surface. Fasten the device to the surface using the included mounting screws. Follow waterproofing steps to avoid water damage to the cable



The camera viewing angle can be adjusted by loosening the screws on the side of the base arm. Adjust as needed and tighten the arm screws to lock the camera in place.



If mounting the device outdoors and PoE cable is not routed through the mounting surface or a conduit box, ensure that the cable exits downward prevent water ingress.

Compatible Accessories

The R545 is compatible with select Rhombus accessories to support various installation options. For a full list of accessories compatible with the device, please visit the R545 product page at: [PLACEHOLDER] <https://www.rhombus.com/cameras/fisheye-cameras/r545/>

Registration

The device can be registered once it is powered up and connected to the internet. Ensure the camera has the correct LED status that indicates it is ready for registration.

Camera Model	Connected to Rhombus Servers	Not Connected to Rhombus Servers	Registration Failure
R545	[TBD]	[TBD]	[TBD]

For a full explanation of device status LED behavior, please visit:

<https://support.rhombussystems.com/hc/en-us/articles/14793298069773-Device-LED-Statuses>

If the camera does not auto-register when brought online, you can register the device from the Rhombus Mobile App or via the Rhombus Web Console.

Specifications

General:

- Dimensions: Ø92 x 225 mm [Ø3.62 x 8.85 in]
- Weight: 0.82 kg [1.8 lb]
- IR Range: 50 m [164 ft]
- Storage: Supports up to 2 micro SD cards
- Mounting: Wood/drywall screws
- 10-Year Warranty

Optical:

- Resolution: 3864 x 2180 (4K)
- Pan/Tilt/Zoom: 2.5X optical zoom
- Field of View
 - Diagonal: 45° - 18°
 - Horizontal: 39° - 15.7°
 - Vertical: 22° - 9°
- Aperture: F1.47 - F1.69
- Focal Length: 11 - 28 mm
- Iris: P-iris

Connectivity/Power

- PoE IEEE802.3at
- Wireless Sensor Platform Enabled

Environmental

- Weather Resistance: IP66
- Operating Temperature: [TBD]
- Operating Humidity: 10 – 90% RH non-condensing

Compliance

- FCC, IC, CE, UKCA, RCM, LVD