**Package Contents**

Thermal Bullet Camera

1. Thermal Bullet Camera

Additional:
- 1x Waterproof RJ45 connector kit
- 1x Screws kit (4 screws, 4x raw plugs)
- 1x Torx Wrench
- 1x Power Cable Adaptor
- 1x Installation template
- 1x Quick Start Guide
- 1x Hardware Reset Ethernet Loopback

**Connections**

The camera is fitted with a preterminated cable bundle for easy installation.

![Figure 1 Cable bundle](image)

**Table 1: Connections**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Video OUT</td>
</tr>
<tr>
<td>2</td>
<td>Audio IN</td>
</tr>
<tr>
<td>3</td>
<td>LAN</td>
</tr>
<tr>
<td>4</td>
<td>I/O connections</td>
</tr>
<tr>
<td>5</td>
<td>Power</td>
</tr>
</tbody>
</table>

**Table 2: I/O connection wiring**

<table>
<thead>
<tr>
<th>No.</th>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ALARM_COM</td>
<td>Alarm output</td>
</tr>
<tr>
<td>2</td>
<td>ALARM_NO</td>
<td>Alarm output (Normal open)</td>
</tr>
<tr>
<td>3</td>
<td>ALARM_IN1</td>
<td>Alarm input1</td>
</tr>
<tr>
<td>4</td>
<td>ALARM_IN2</td>
<td>Alarm input2</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td>Ground port</td>
</tr>
</tbody>
</table>

**Safety Notices**

Warning
- Ensure that the power supply is switched off during installation.
- When installing the camera, fasten it securely to the surface. A falling camera may cause personal injury.

Caution
- Only transport, store and install in suitable environments. For more information, see the User Guide.
- Using the incorrect voltage or using two power supplies at the same time can irreparably damage the camera. Ensure that the correct voltage is used for the auxiliary power supply.
- Cameras powered by PoE have been evaluated as network environment "C" (basic insulation) and are not intended for routing outside a common building. Cable runs for cameras should only be run within a common building.
- Incorrect installation may result in water ingress into the camera. Ensure you install the camera correctly to ensure the unit is water tight.
- For security reasons, you must change the camera's default username and password.
- Ensure each camera has a unique IP address.

**Regulatory**

- EN 61000-3-2
- EN 61000-3-3
- FCC Part 15 Subpart B Class A
- EN 50130-4
- EN 55032 Class B
- EN 55024
- EN 60068-2-1: 2007
- EN 60068-2-2: 2007
- EN 60068-2-30: 2007
- EN 60068-2-6: 2008
- EN 60068-2-64: 2008
- EN 60068-2-27: 2009
- EN 60529
- EN 62382
- IEC 61000-4-2
- IEC 61000-4-3
- IEC 61000-4-4
- IEC 61000-4-5
- IEC 61000-4-6
- IEC 61000-4-8
- IEC 61000-4-11
- RoHS directive 2002/95/EC

**Environment**

- Temperature:
  - Operating PoE: -40°C to +60°C (-40°F to 140°F)
  - Cold start PoE: -20°C (-4°F)
- Storage: 0°C to +50°C (32°F to 122°F)
- Maximum humidity: 95%

**Contacts**

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This manual is provided without express representation and/or warranty of any kind. Please contact IndigoVision Limited (either by post or by e-mail at technical.support@indigovision.com) with any suggested corrections and/or improvements to this manual.

**Further Information**

For further information, see the Partner Portal:

https://partners.indigovision.com

Alternatively, scan the QR code below.
1. POWERING UP THE CAMERA

The camera is a Power Over Ethernet (PoE) - Class 0 powered device compliant with the IEEE802.3af standard.

If PoE is not available the camera can be powered using the auxiliary power.

The camera can be powered by the following:

- Power over Ethernet (PoE) switch
- PoE injector/midspan (Part Number 130176)
- Auxiliary power supply
- 24V AC / 12V DC with a maximum power of 8 Watts

A suitable power supply must be ordered separately. The camera should only be powered from the specified voltage.

2. CONFIGURING THE CAMERA

Before you connect the camera to your network, you must configure the camera’s IP address and subnet mask appropriately.

Configure the settings

1. Connect the camera to a PC using an Ethernet cable.

Ensure that each camera has a unique IP address.

2. Navigate to the camera’s default IP address using a web browser, and enter the default user name and password.

Table 3: Default network settings

<table>
<thead>
<tr>
<th>Default Username</th>
<th>Admin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Password</td>
<td>1234</td>
</tr>
<tr>
<td>Default IP Address</td>
<td>10.5.1.10</td>
</tr>
<tr>
<td>Default Subnet Mask</td>
<td>255.0.0.0</td>
</tr>
<tr>
<td>Default Gateway</td>
<td>10.0.0.1</td>
</tr>
</tbody>
</table>

3. Enter the NTP server and port on the Setup > System > General > Date&Time menu.

4. Enter a new IP address and subnet mask on the Setup > Network > TCP/IP menu.

5. Select the video standard for your region using the Video Standard option on the Setup > System > General menu.

Choose PAL for countries with 50Hz power frequency and NTSC for countries with 60Hz power frequency.

Binary I/O connections

The Thermal Bullet Camera has one binary input and one binary output. These are connected using the Alarm I/O connections on the camera.

Binary input

The binary input is operated by connecting the Input directly to GND.

- 10kΩ pull-up input to 3.3V
- Normally high

The input must be configured on the Web Configuration pages to ensure correct behavior.

Binary output

The binary output is a solid state open collector output:

- Max load voltage: 5V AC/DC
- Max current carrying capacity: 30mA

The binary output is not polarity sensitive and is normally open. This can be configured on the Web Configuration pages.

3. INSTALLATION

After you have configured your camera’s IP settings, you are ready to install it in its final position.

Thermal Bullet Camera installation

The Thermal Bullet Camera can be installed directly on a wall or ceiling.

Mounting the camera

1. Fix the installation template in the correct location with the correct orientation for the surface, for example, ceiling or wall.

2. Following the installation template, drill 4 holes in the installation surface for the rawplugs.

3. Insert the 4 rawplugs (2) into the holes in the installation surface.

4. Align the base of the camera (3) over the rawplugs.

5. Insert the screws (1) into the rawplugs and fasten them firmly.

6. Connect the cable bundle.

7. Adjust the position of the camera as required by loosening the adjustment screw (5).

Ensure you tighten the adjustment screw securely after making any adjustment.

8. Adjust the sunshade as required by loosening the adjustment screw on sunshade (4).

Ensure you tighten the adjustment screw securely after making any adjustment.

4. OPERATIONS

SD card installation

Figure 4 SD card installation

To install an SD card, open the door on the underside of the camera (1) and insert the SD card into the slot.

Notice

Use an SD card with a maximum size of 128 Gb.

Configuring the camera

You can access the camera configuration pages using the IP address of the camera.

Alternatively, you can access these pages through IndigoVision Control Center.

1. In Setup view, select the camera you want to configure.

2. Select the Configure tab, and enter a valid user name and password if required.

Reset to factory defaults

You cannot use PoE when resetting camera settings to factory defaults. When resetting camera settings, use an auxiliary power supply.

You can reset the camera settings to factory defaults using the following methods:

- Use the camera configuration pages: click Setup > System > Default > Full Restore.
- Use the Hardware Reset Ethernet Loopback:
  1. Power off the camera and remove the Ethernet cable.
  2. Power on the camera using auxiliary power, and wait for 2 minutes.
  3. Insert the RJ45 Ethernet Loopback into the LAN port of the camera, and wait for 10 seconds.
  4. The camera powers off and resets all settings to factory defaults.
  5. Connect the Ethernet cable as before, and leave for 3 minutes.
  6. Power on the camera.

The camera settings are restored to the default settings in Table 3.

After the reset procedure is complete, you can disconnect auxiliary power and use PoE if required.