

# IP Cameras

MANUAL



VERSION 1.0.2

IP-DI23IVRIP-DI24IGRIP-DI443VRIP-TI44IGRIP-BI403IP-T3443RIP-MTI44IGRIP-T3443GR

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## 1. About this Manual

Das Material in diesem Dokument dient lediglich zu Informationszwecken und kann ohne Vorankündigung geändert werden. Wir haben keine Mühen gescheut, die Richtigkeit und Vollständigkeit dieser Bedienungsanleitung zu gewährleisten. Dennoch haften wir nicht für jegliche Fehler und Auslassungen.

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Langenfeld den 03.01.2017

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- Any damages or losses, including but not limited to direct or indirect, special, exemplary or consequential damages that arise because of or in connection with the device
- Any injuries or losses caused by inappropriate or careless use
- Unauthorised disassembly, repair or modification by the user or unauthorized third parties
- Any problems, resulting incoveniences, losses or damages that stem from combining the device with devices of another manufacturer;
- Any damage claims or lawsuits by any persons or organizations considering invasion of privacy and illegal filming and/or photographing, including saved data used privately or publicly for reasons other than surveillance.

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This document is provided on an "As Is" basis without any explicit or implicit assurances and no claims can be derived from it, including but not limited to implied assurances of merchantability, adequacy for certain purposes and non-infringement of third parties.

This document may contain technical inaccuracies and typos. The information contained in this document as well as the specifications of the devices described therein may be changed at any time.

#### 1.4 Safety Information

#### Warning



This symbol represents possible dangers, risks or circumstances requiring special attention. The user must comply with the handling-, maintenance-, and repair instructions



#### **Beware**

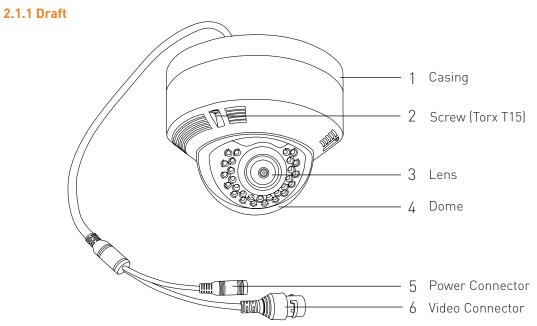
The lightning symbol in a triangle represents dangerous currents close to the product casing that can seriously harm an persons.

#### 1.5 Safety Instructions

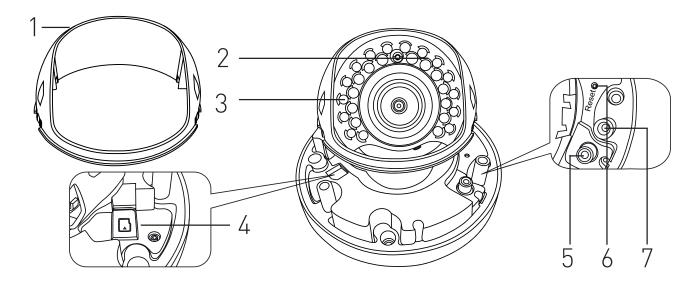
- Never touch current-carrying electrical parts.
- Electrical shocks can be avoided. Follow the procedures listed below. Incorrect installation, improper grounding and incorrect handling and maintenance pose potential dangers.
- Do not install or remove the device during rain and heavy wind. Do not try to install, remove or handle the device during thunderstorms.
- Make sure that all electrical devices and the working platform are properly grounded.
- Avoid electrical shocks by grounding the power supply, control cabinets and working platforms.
- Always use the correct cable size.
- Continuous overload results in cable damages and poses a risk of electrical shocks and is a fire hazard. The specifications of the cables must comply with the specifications of the power supply.
- Keep the cables and connectors in a good condition.
- Improper and worn out connectors can cause short circuiting and pose a threat of electric shocks. Never use worn
  out, damaged or exposed cables.
- Always avoid open-circuit voltage.
- Always war isolating gloves while handling the device.
- When handling the device, always make sure to disconnect it from the power supply and to wear isolating gloves.
- Always wear protective clothing, for example long-sleeved shirts, when installing or removing a device.
- Always wear comfortable, sturdy shoes.
- Make sure to wear clean clothes, free of oil- and grease stains.
- Protect other workers in close proximity to you from exposure to arc radiation.
- Wear long pants or jeans while installing or removing the device.
- While working, always wear a helmet or other robust headgear. Also wear protective footwear.
- Store the device in a dry place.
- When working in elevated areas, always wear a strap.
- Always wear dry clothing, avoid water and moisture.
- When working at night, always wear a safety west.
- Make sure that all connectors are tight, dry and clean.
- To avoid electrostatic charging, make sure you are isolated.
- Always wear dry gloves, shoes with rubber soles or stand on a dry piece of wood or a platform.
- Always follow common safety standards.
- Always wear appropriate eye-, hearing-, and body protection.
- Make sure that another person is on site when working in dark, badly ventilated or elevated areas.

# 2. Drafts and Installation

# 2.1 IP-D1231VR



#### 2.1.2 Components IP-D1231VR



Part	Name	Function
1	Interior Cover	Protects the lens and movable parts.
2	Day/Night Sensor	Activates the IR-LEDs.
3	IR-LEDs	Enable videosurveillance in no-light conditions.
4	microSD Slot	For a microSD card up to 128GB.
5	Analogue Video Output	Enables connection of an analogue monitor. (For use as an alignment aide)
6	Reset-Button	Restarts the camera.
7	Guide	Threads for the screws that fix the dome to the base.

#### 2.1.3 Installing the IP-D1231VR

#### Please Note

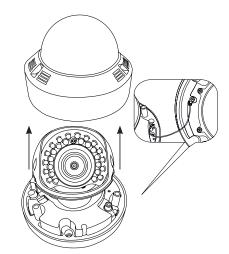
- -Only attach the camera to surfaces that can hold the fivefold weight of the camera.
- -Use cables in flawless condition only. Creased cables can damage the camera and a FIRE HAZARD! -
- -Make sure that no persons are in the danger zone during installation.

#### Opening the camera

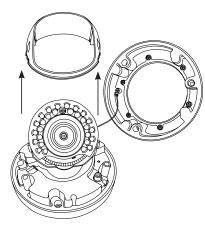


1. Loosen the Torx-Screw

Attention! The dome is connected to the base with a wire. For a more comfortble installation you can loosen the wire and completely remove the dome.

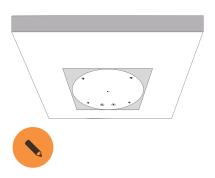


2. Lift the cover.

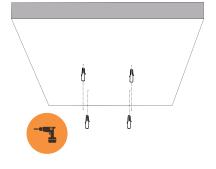


Attention! Do not touch the lens!

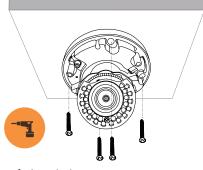
**3.** Lift the interior cover. When using a camera with an microSD slot, read the chapter "Inserting microSD cards" page 8.



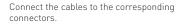
**4.** Mark the boreholes using the drilling template.



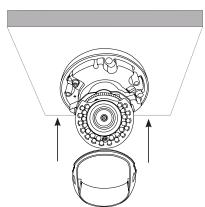
**5.** Drill the holes and insert dovels.



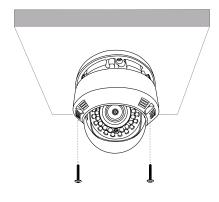
6. Attach the camera.



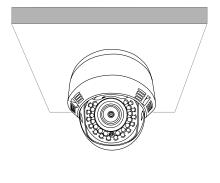
Next, you should align the lens and adjust the zoom, depending on the camera's model.
Read chapter "Kameraeinrichtung" Seite 7 for instructions.



7. Attach the inner cover.



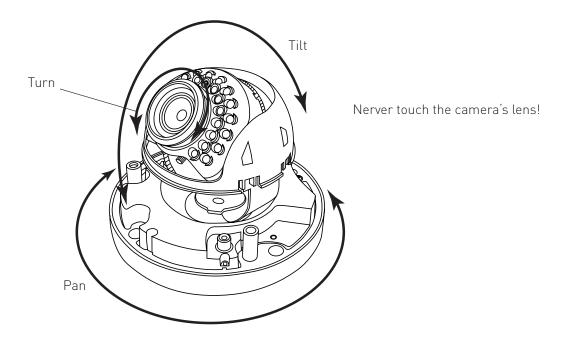
8. Attach the cover.



9. That's it!

#### 2.1.4 Dome Camera Diagram 3-Axis Control

The camera's direction can only be adjusted when the camera is attached to the ceiling. You can pan the camera to the left and the right, tilt it up or down and turn the lens.

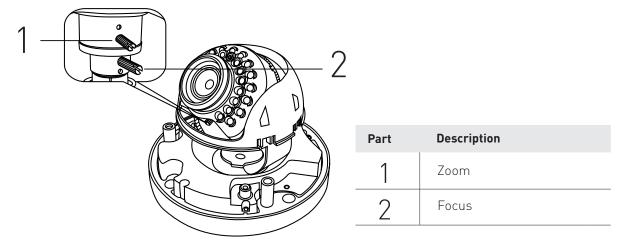


#### Orientation:

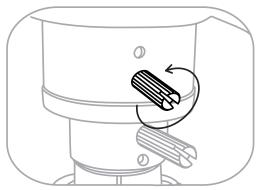
- 1. After installation, pan the camera in the desired angle.
- 2. Turn the lens until the video is displayed correctly
- 3. Tilt the camera into the desired position.

#### 2.1.5 Manually adjusting zoom and focus

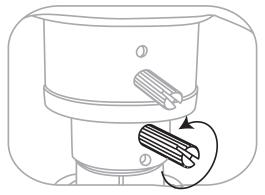
Mount the camera as described in the previous chapter. The interior cover and casing must be removed to adjust zoom and focus.



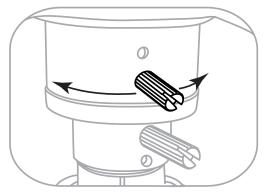
Connect a service monitor to the analogue output or pair the camera to a computer/smartphone to make the desired settings.



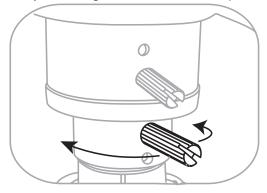
**Zoom:** Loosen the upper screw with a screwdriver. Take care not to remove it completely.



**Focus:** Loosen the lower screw using a screwdriver. Take care not to remove it completely.



Move the component by dragging the screw to the left or right until the desired zoom level is reached. Verify the settings via a monitor or smartphone.



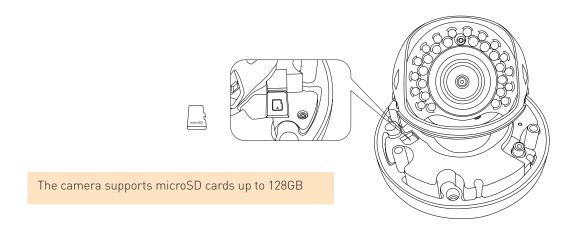
Move the component by dragging the screw to the left or right until the image is focussed correctly.

Verify the settings via a monitor or smartphone.

After adjusting zoom and focus, mount the inner cover and casing.

#### 2.1.6 Inserting an SD card (Dome Kamera)

- -Disconnect the camera from the power supply before removing or inserting an SD card.
- -Be careful when inserting or removing the SD card, otherwise it might be damaged. If you have trouble inserting the SD card properly, make sure to insert it exactly as depicted below
- -Don't remove or insert SD cards when it rains or during high humidity.
- -The camera's dome should not be taken off for more than 5 minutes to avoid condesation.

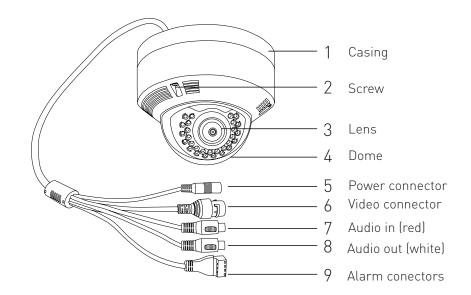


Insert the microSD card with the contacts downwards.

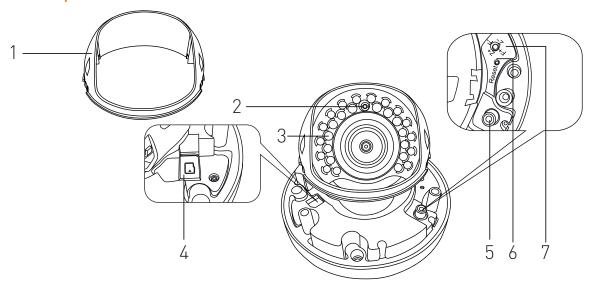
To remove an SD card from the camera, push it inwards until it is ejected.

# 2.2 IP-D1443VR

#### 2.2.1 Draft



#### 2.2.2 Components IP-D1443VR



Part	Name	Function
1	Interior cover	Protects the lens and movable parts.
2	Day/Night Sensor	Activates the IR-LEDs.
3	IR-LEDs	Enables videosurveillance in no-light conditions.
4	microSD Slot	For a microSD card up to 128GB.
5	Analogue Video Output	Enables connection of an analogue monitor. (For use as an alignement aide)
6	Reset-Button	Restarts the camera
7	Lens control	Controls zoom and focus

#### 2.2.3 Installing IP-D1443VR

#### Please Note:

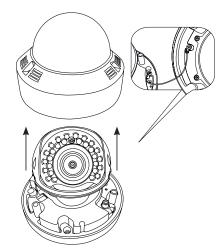
- -Only attach the camera to surfaces that can hold the fivefold weight of the camera.
- -Use cables in flawless condition only. Creased cables can damage the camera and are a FIRE HAZARD!
- -Make sure that no persons are in the danger zone during installation.

#### Opening the camera

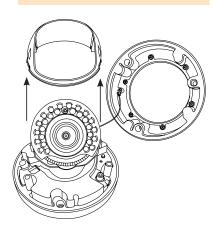


1. Loosen the Torx-Screw

Attention! The dome is connected to the base with a wire. For a more comfortble installation you can loosen the wire and completely remove the dome.



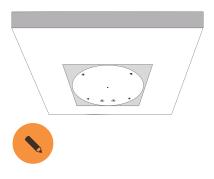
2. Lift the cover.



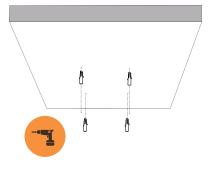
Attention: Do not touch the camera's

lens!

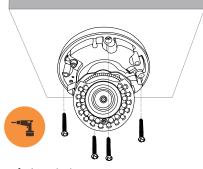
**3.** Lift the interior cover. When using a camera with an microSD slot, read the chapter "Inserting microSD cards" on page 8.



**4.** Mark the boreholes using the drilling template.



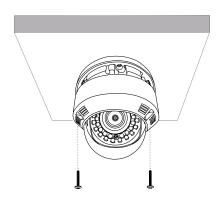
**5.** Drill the holes and insert dovels.



6. Attach the camera.



7. Attach the inner cover.

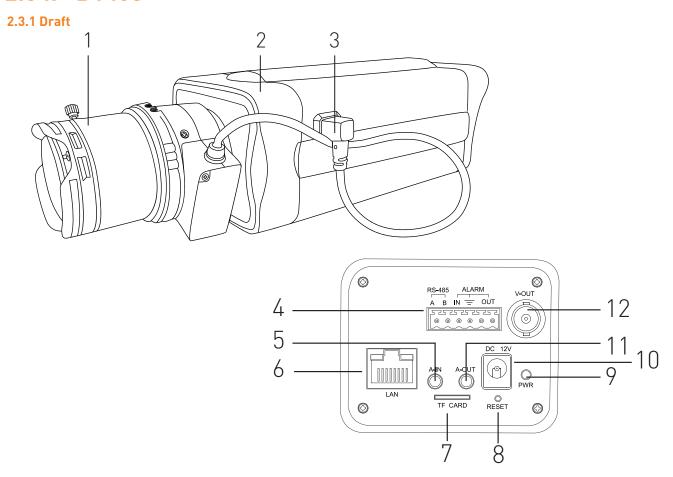


8. Attach the casing.



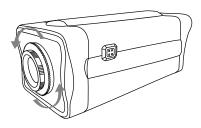
9. That's it!

# 2.3 IP-B1403

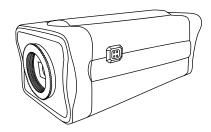


Bauteil	Bezeichnung	Funktion
1	Lens	To be mounted to the case
2	Case	Contains the elctronics
3	Auto-Iris Cable	Transmits video from the lens to the camera
4	RS-485 Inputs	Enables the connection of external devices to the camera
5	Audio In	Jack for connecting a microphone
6	Ethernet Interface	Connects the camera via an ethernet cable to a network
7	TF Card Slot	Slot for a TF card
8	Reset	Restarts the camera.
9	Power LED	Lights up when the camera in on.
_10	Power Connector	12V DC connector for a power cable.
11	Audio Out	Jack for connecting loudspeakers
12	Video Out	Analogue output for connecting a monitor.

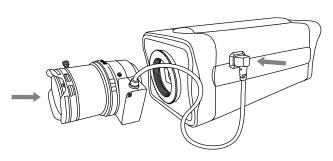
#### 2.3.2 Assembling the box-camera



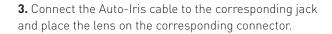
**1.** Remove the protective cap from the camera's lens connector by turning it counterclockwise.



**2.** Do NOT touch the camera's lens connector and quickly continue with step 3.

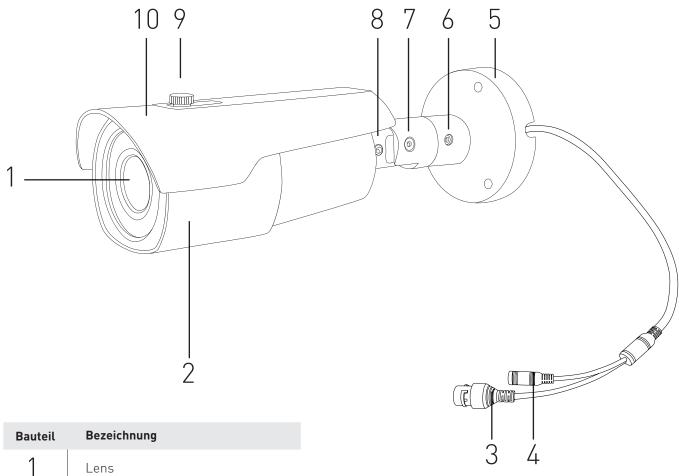


**4.** Carefully turn the lens clockwise all the way to the stop.



# 2.4 IP-T1241GR/IP-T1441GR

#### 2.4.1 Draft

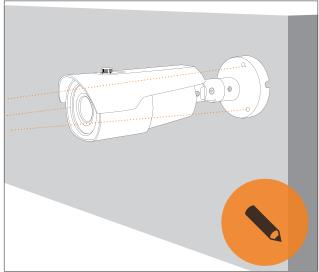


Bauteil	Bezeichnung
1	Lens
2	Casing
3	Video Connector
4	Power Connector
5	Mounting foot
6	Screw A
7	Screw B
8	Screw C
9	Sunprotector Screw
10	Sunprotection

#### 2.4.2 Installing IP-T1241GR/IP-T1441GR



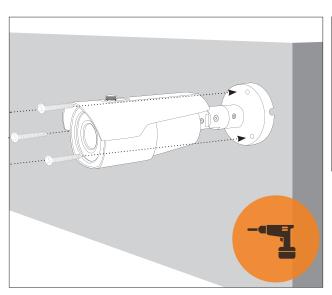
The camera is weather resistant according to IP66. However, this does not apply to cables and connectors. We recommend installing the camera below the ridge line to prevent moisture entering the camera

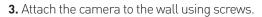


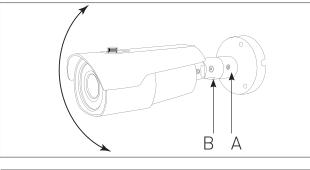
**1.** Hold the camera to the desired position and mark the boreholes.

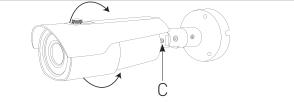
2. Drill holes at the marked positions and insert dovels.

Connect the cables with the corresponding connectors. If using the camera outdoors, wrap the cables with butyl tape. See page 15 for further information









**4.** Adjust the camera's position.

Loosen Screws A and B to adjust the camera's position vertically. Loosen screw C to turn the camera along it's own axis. Tighten the screws to secure the camera in it's current position.

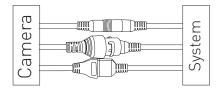
Adjust the camera's image remotely via

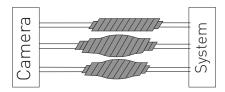
#### 2.4.3 Outdoor Installation

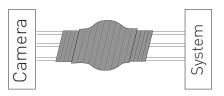


When installing the camera in outdoor areas, the cables must be sealed using butyl tape to prevent moisture entering the camera.

- -Connect all cables.
- -Seal each cable link with butyl tape.
- -Seal all cable links with the butyl tape.



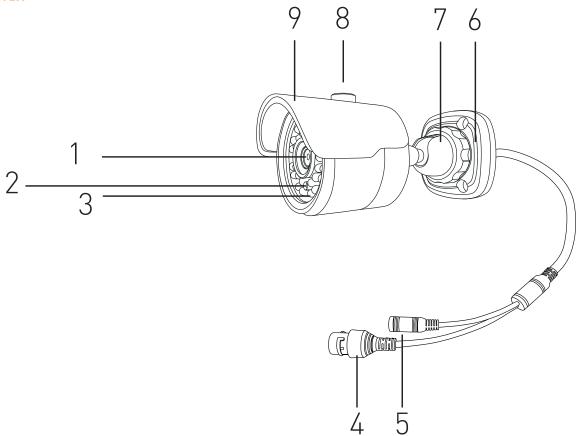




-Connect all cables.

# 2.5 IP-MT1441GR

#### 2.5.1 Draft

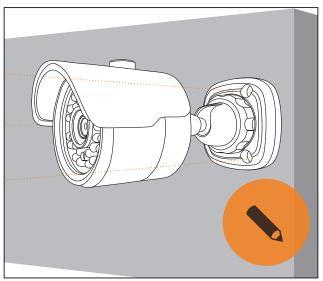


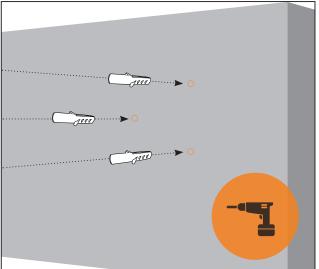
Item	Function
1	Lens
2	Day/Night Sensor
3	IR LEDs
4	Video Connector
5	Power Suppy
6	Mounting Foot
7	Lock Ring
8	Sun Protection screw
9	Sun Protection

#### 2.5.2 IP-MT1411GR Installation

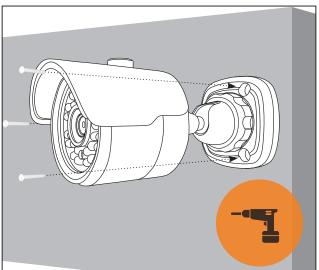


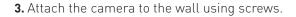
The camera is watherproof according to IP66. However, this does not apply to the cables nor the connectors. We recommend installing the camera below the eave to prevent moisture entering the camera via the connectors.

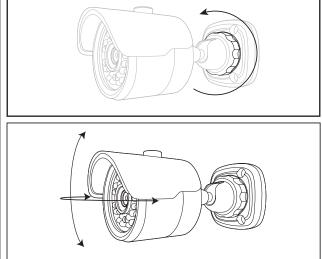




1. Hold the camera against the wall and mark bore- 2. Drill the holes and insert dovels. holes at the desired position.





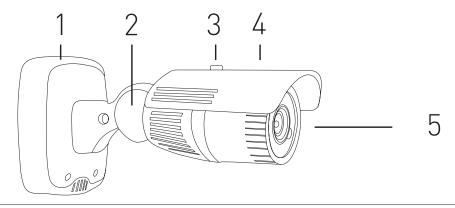


4. Loosen the lock ring (7) and align the camera.

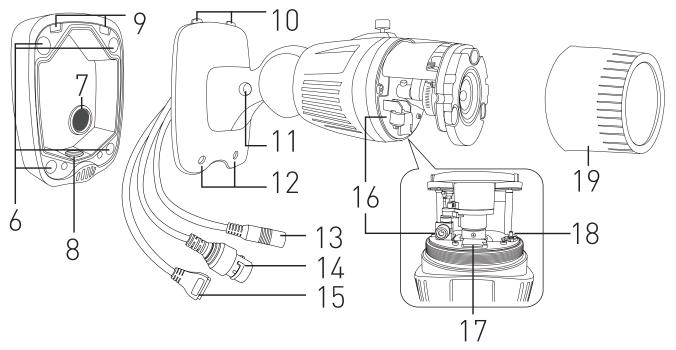
Use a service monitor or the webclient to check if the camera was positioned correctly.

# 2.6 IP-T3443R/IP-T3443GR

#### 2.6.1 Draft



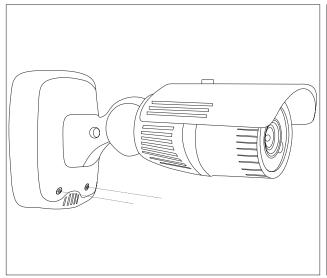
## 2.6.2 Components IP-T3443R/IP-T3443GR

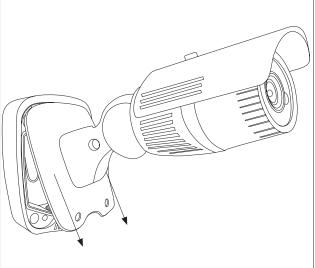


Bauteil	Bezeichnung
1	Junction Box
2	Joint
3	Sun cover screw
4	Sun cover
5	Lens
6	Recesses for boreholes
7	Cable entry with rubber protection
8	Lower cable entry
9	Grooves
10	Spigot

Bauteil	Bezeichnung
11	Allen screw
12	Recessews with 2 Allen screws
13	Power connection
14	Ethernet connector
15	Alarm connector
16	Analogue video output
17	microSD cardslot
18	Control for zoom/focus
19	Lens Cover

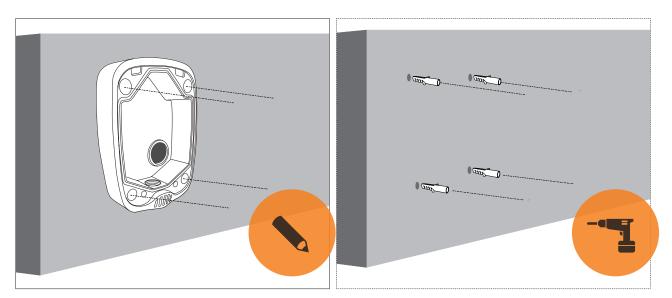
#### 2.6.3 IP-T3443R/IP-T3443GR Installation



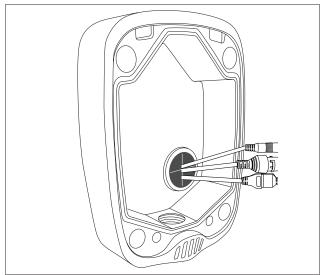


**1.** Remove both Allen screws at the lower end of the junction box.

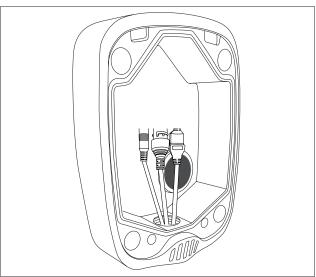
**2.** Lift the camera and pull it down to remove the spigots (10) from the groove (9).



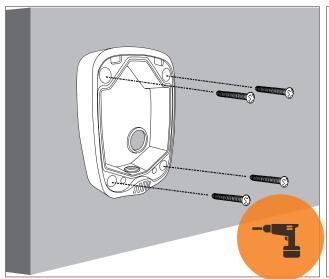
**3.** Hold the junction box against the wall and mark the **4.** Drill holes and insert dovels. bore holes (6).



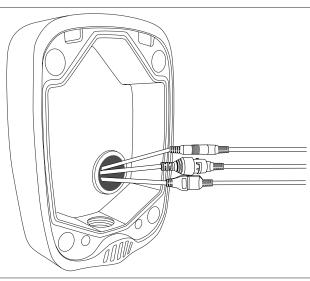
**5.1.** If you work with cables running behind a wall, cut open the cable entry with rubber protection (7) and behind a wall, remove the screw at the lover edge of run the cables through it.



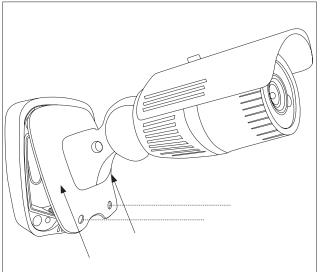
the junction box and run the cables through it (8).

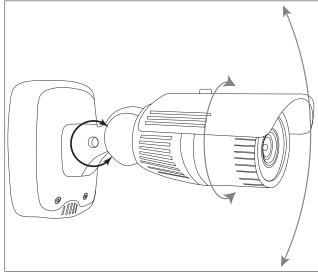


**6.** Attach the junction box to the wall.



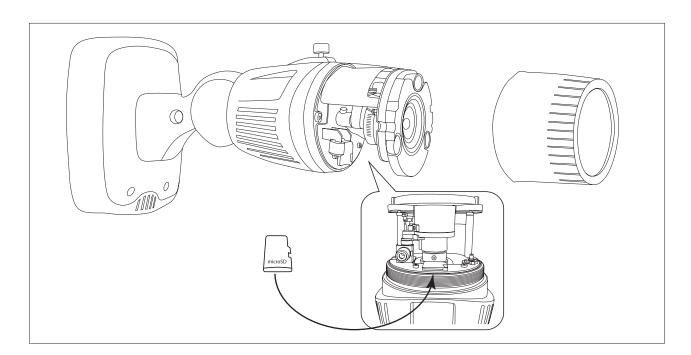
**7.** Connect the cables with the connectors of the camera (13, 14, 15).





**8.** Reattach the camera to the junction box by putting the spigots (10) into the grooves (9), then insert and tighten the Allen screws (12).

**9.** To adjust the camera vertically and turn it around its own axis loosen the screw on the joint (11) und adjust the camera as desired. Tighten the Allen screw again once you're done.



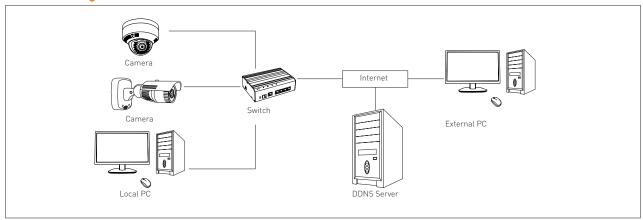
- **10.** Unmount the lens cover (19) to gain access to the microSD cardslot (16), the analogue video output (17) and the lens zoom/focus control (18).
- 11. Insert a microSD card (up to 128GB) into the microSD cardslot.
- **12.** You can connect an analogue service monitor to the analogue video output (16) to immediately check the image settings on site. Using the joystick you can control zoom and focus.



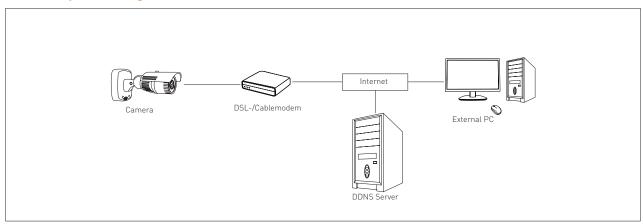
Use the webclient to conveniently adjust the image settings once the camera is turned on and connected to the network (see page 30).

# 3. Network Diagram

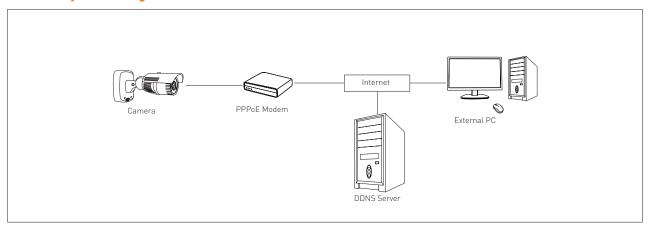
#### 3.1 Connecting the camera to a PC in a local network



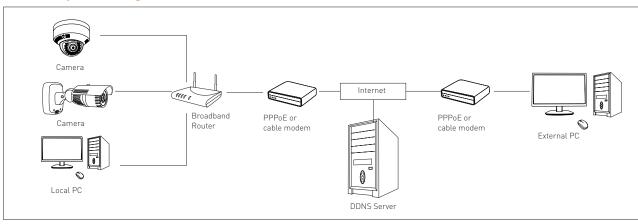
#### 3.2 Directly connecting the camera camera to a DHCP based DSL-/cable modem



#### 3.3 Directly connecting the camera to a PPPoE modem

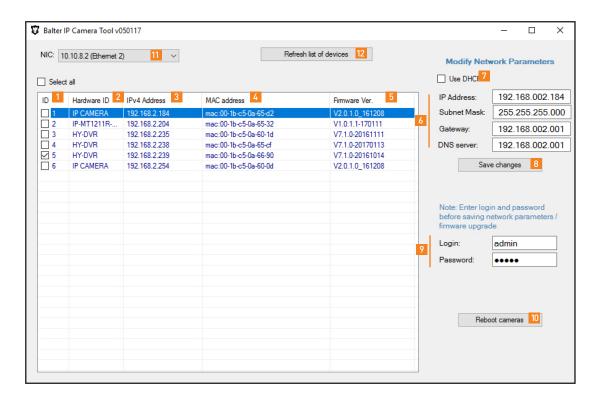


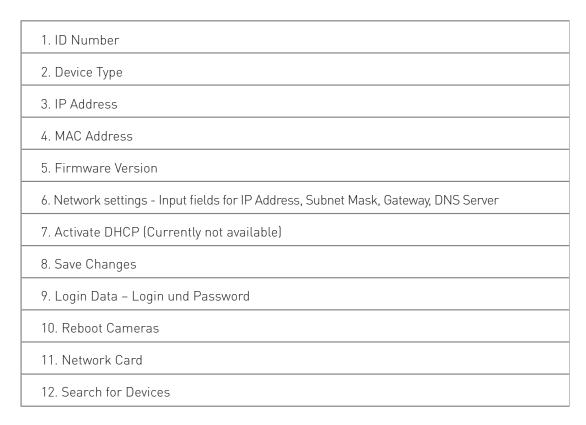
#### 3.4 Directly connecting the camera to a broadband router via a PPPoE- or cable modem

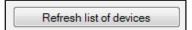


# 4. Using the **IP Finder Tool** to find cameras in a local network

### 4.1 IP Finder







admin

....

Save changes

Login:

Password:

## 4.2 Searching for Devices in a LAN

Click "Refresh list of devices".

All found devices will be displayed in the list.

## 4.3 Change Network Settings

- Enter a user name and a passoword into the fields "Login" and "Password"
- Click on a device in the list.
  This device will be highlighted and the network settings (IP Address, Subnet mask, Gateway, DNS server) will be displayed.
- Change the network settings and click "Save changes".

# 4.4 Accessing a device's web interface

Doubleclick a device in the list

IP Address:	192.168.002.169
Subnet Mask:	255.255.255.000
Gateway:	192.168.002.001
DNS server:	800.800.800.800

Please note: To access a IP camera's web interface, the camera's IP address must be in the same network segment as the IP address of the computer.

For example: If the computer's address (LAN IP) is 192.168.002.100, the camera's IP address should be configured as follows:

IP-Adresse: 192.168.2.101

(The first three positions (192.168.2) must correspond to the computer's IP address, the last number (101) must be individual for each camera

**Subnet Mask:** 255.255.255.0

**Standard Gateway:** 192.168.2.1 (IP Adress des Routers)

# 5. Webinterface of IP cameras

## 5.1 Supported Browsers

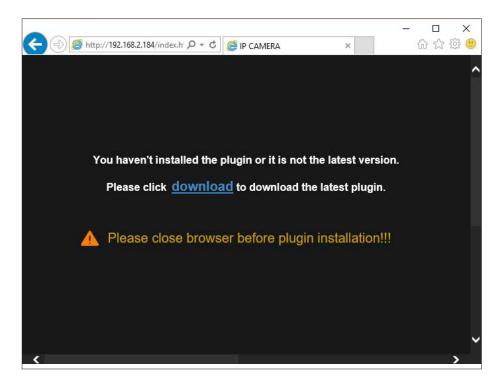
Windows:
Internet Explorer
Firefox
Not supported:
EDGE, Chrome
macOS:
Safari

# 5.2 Installing the Web Plug-In

When accessing the web interface for the first time, you will need to install the web plug-in.

5.2.1 The installation page will be displayed when the surveillance site is accessed for the first time.

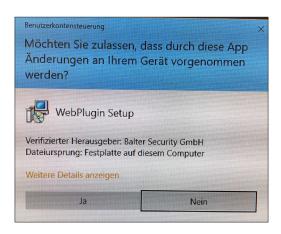
Click "Download" to download the plug-in.



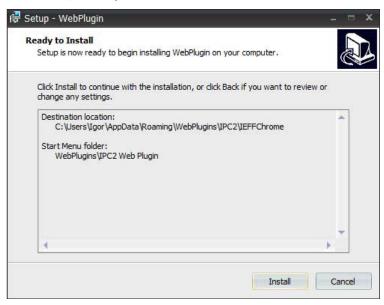
5.2.2 Click "Execute", to install the Plug-In.



#### 5.2.3 Click "Yes"

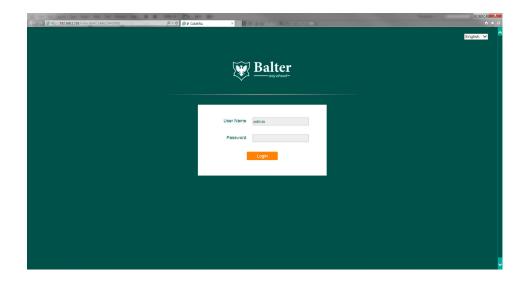


#### 5.2.4 Click "Install", to confirm the installation.

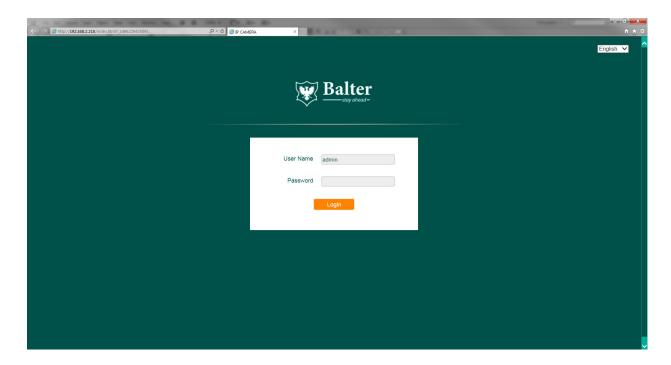


#### 5.2.5 Restart the webbrowser and enter the IP camera's IP address into the URL bar.

If the installation was successful, you will see the login interface.



# 5.3 Login Interface and Language Selection



#### 5.3.1.Language Selection

Click **Deutsch ∨** and select your language.

#### 5.3.2 Login

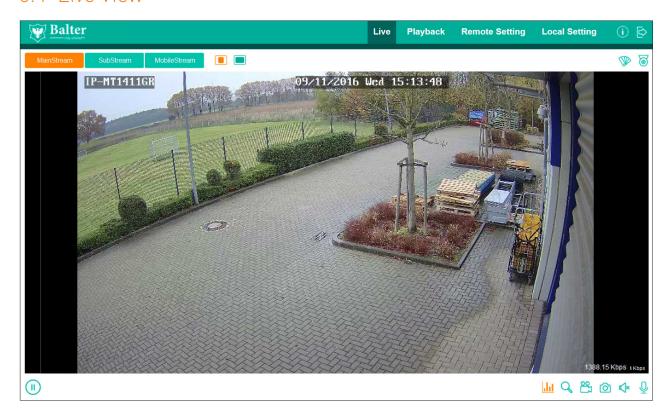
Enter the user name and password.



Generic login data:

User Name: admin Password: admin

# 5.4 Live View



#### Main Menu

rialii riciia		
Live	Live view	
Playback	Playback window (will be displayed only when the camera has an SD cardslot)	
Remote Settings	Camera Settings	
Local Settings	Location for exported videos and snapshots	
i	Logged in user, Interface- and Plugin version	
	Log out	

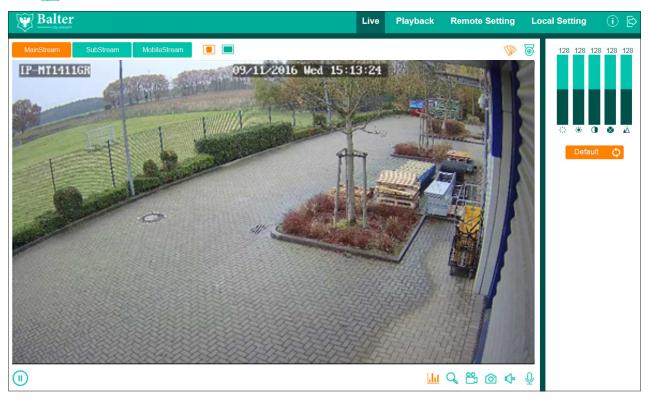
#### Live view menu

Live view illella	
MainStream SubStream Mobile Stream	Change streams.  Main Stream – Maximum video resolution (given a good network speed)  Sub Stream – Medium video resolution (for moderate network speed)  Mobile Stream (for slow network speed).
	Aspect ratio: Original/stretched
	Image settings (Brightness, Contrast, Saturation, Sharpness)
<u></u>	Lens motorzoom/focus controls
	Start/stop live image
Q	Digital zoom
	Start/Stop local video recording. Video segment will be saved directly to your computer. Please note: To save videos, you must run the web browser as an administrator
Ô	Snapshot Please note: To save images, you must run the web browser as an administrator
<b>*</b>	Start/stop audio transmission
Q	Start/Stop communication

#### Status display

Н	Storage medium missing
R	Continous recording
М	Motion recording
L	Line crossed
Р	Perimeter
0	Object appeared/disappeared
С	Camera was covered

**5.4.1 Image settings**Click to open the image settings menu.

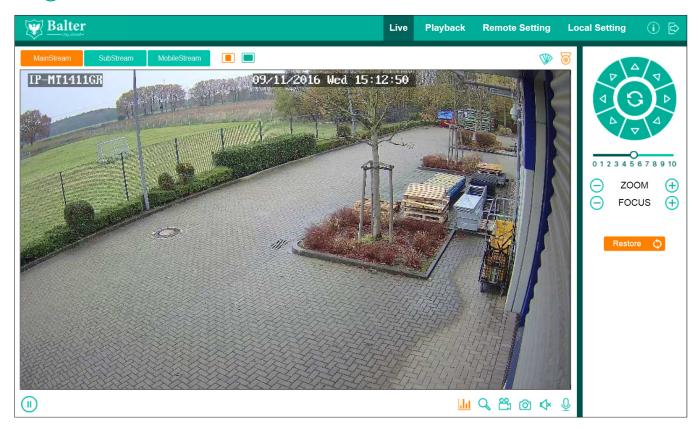


	Hue
•••	Brightness
	Contrast
8	Saturation
lack	Sharpness

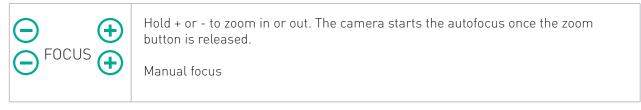
#### 5.4.2 Lens zoom/focus controls

This function is only available with cameras with an motorzooom lens.

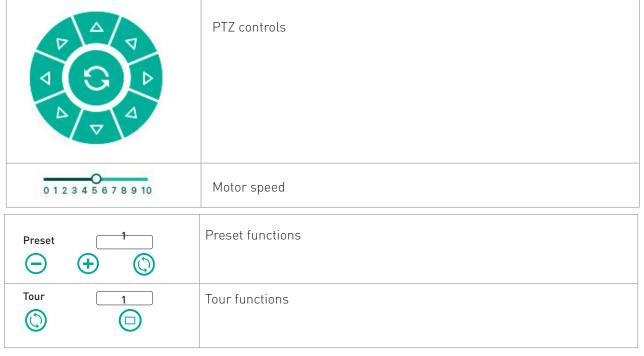
Click to open the lens control menu.



#### Zoom- und focus controls



#### Functions for PTZ cameras



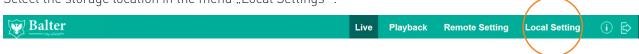
#### 5.4.3 Saving images/videos

5.4.3.1 Run the browser as an administrator

To save images, the browser must be ran as an administrator.

Rightclick the Internet Explorer or Firefox icon and select "Run as administrator"

Select the storage location in the menu "Local Settings".



#### 5.4.3.2 Saving images

Click o, to save an image.

The image will be saved in the designated storage location.

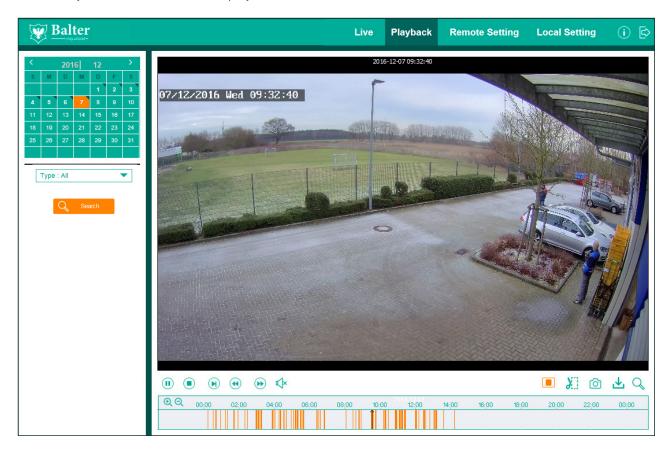
#### 5.4.3.3 Saving videos.

Click to start a recording. Click again to stop the recording and to save the video.



# 6. Playback

Click "Playback", to be taken to the playback window.



#### 6.1.1 Calender

Select the date in the calendar.



7	Selected day	
6	Recordings available	
9	No recordings available	

#### 6.1.2 Recording type

Use the menu "Type" to select a recording type. Only recordings of the selected types will be displayed in the timebar, other recordings will be hidden.

#### 6.1.3 Search

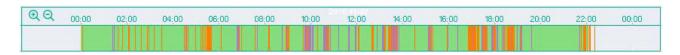
After selecting the date und recoding type, click "Search".



The recordings of the selected day will be shown.

#### 6.1.4 Timebar

The timebar is a simplified representation of the recordings on a selected day. The recordings will be sorted by Time and Type.



Use  $\bigcirc$  or the mouse-wheel to zoom in or out in the timebar. The different colors indicate recording types:

White	No recordings
Orange	Motion
Purple	Video analysis (Line, Perimeter, Object)

#### 6.1.5 Controlbar



(I) (b)	Start/pause playback	
	Stop playback	
N	Picture for Picture	
•	Slow playback. (From 1/2x to 1/8x)	
<b>(b)</b>	Fast forward. (From 2x bis 8x)	
<b>□</b> *	Audio On/Off	
	Aspect Ratio: Original/Stretched	
Œ	Export video segment. Videoabschnitt wird direkt auf Ihrem Rechner gespeichert. Note: To save videos, the webbrowser must be ran as an administrator.	
Ô	Snapshot: Note: To save images, the webbrowser must be ran as an administrator.	
<u></u>	Export video. Video data will be saved directly on your computer. Note: To save videos, the webbrowser must be ran as an administrator.	
Q	Zoom	

# 6.2 Start playback

- 1. Select the desired date in the calendar.

- Click "Search".
   Click D.
   Click the desired position in the timebar. Use the zoom buttons or the mousewheel to zoom in or out.

# 7. Export

Using the export function you can save video segments and complete videos on your computer.

Please note: To use this function you must run your webbrowser in administrator mode.

Rightclick the Internet Explorer or Firefox icon and select "Run as aministrator".

Use the menu "Local Settings" to select the storage location.

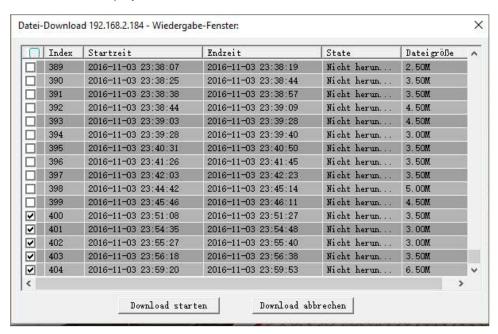
## 7.1 Saving video segments on your computer

- 1. During playback, click the xport button
- 2. Let the video play and click the export button again to save the segment.

  3. Repeat steps 1 and 2 to save further segments...

## 7.2 Downloading videos

1. Click 👱 in the playback menu to view the download list.



2. Select the desired videos and click "Start download"

# 8. Settings

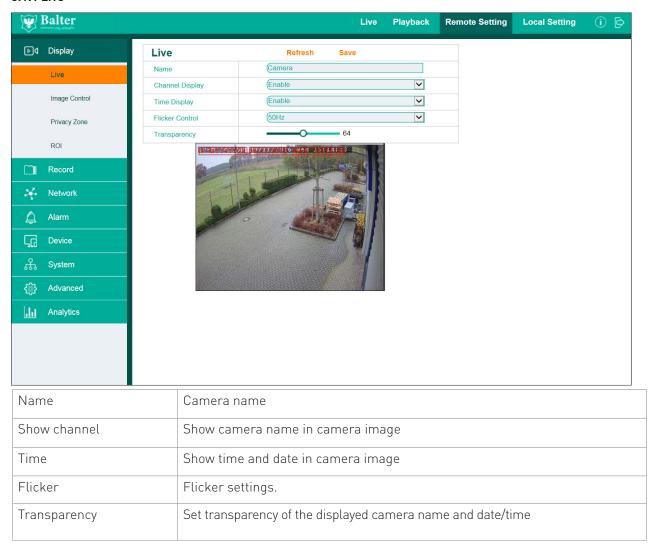
Use the menu "Settings" to access the camera's settings.

▶ <b>4</b> Display	Display settings:  *Live – Camera name and time
Live	*Image settings – Image settings *Privatzonen – Privacy masking *ROI – Region of interest
Image Control	Not Region of interest
Privacy Zone	
ROI	
Record	Recording settings:
Rec Parameters	*Settings – General recording settings *Schedule - Scheduled recording
Normal Schedule	
Network	Network Settings:  *Network settings – IP Address, Ports, Gateway, DNS
Network Setting	*Video Streaming – Resolution, Bitrate, Bitrate  *Email – Email settings  *DDNS – DDNS settings
Video Streaming	*IP Filter – Limit access via IP addresses  *RTSP – RTSP Stream Settings  *FTP – FTP Settings
Email	
DDNS	
IP Filter	
RTSP	
FTP	

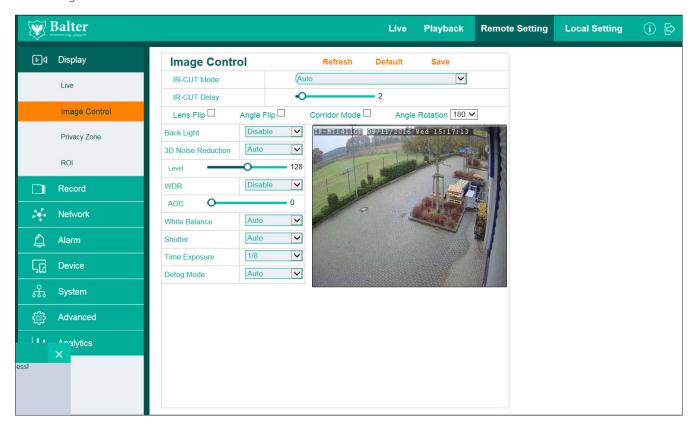
🛕 Alarm	Occurence settings:
Motion	*Motion – Motion detection  *Alarm – Alarm connectors  *Cover detection – Optical tamper detection
Alarm	
Lens Shade	
Device	Device settings:  *SD Card – format SD card, overwriting.
SD Card	*Audio – Audio on/off *Log - Log
Audio	
Log	
System System	System settings:  *Date/Time – Set date and time
Date/Time	*User – User managment *Info – Device information, P2P code *Intelligent Analysis
Users	
Info	
Intelligent Analysis	
र््ी्रि Advanced	Advanced setting:  *Firmware Update – Update firmware
Firmware Update	*Factory settings – Reset to factory settings *Mangment - Restart
Load Default	
Maintain	
Analytics	Video analysis:
Perimeter Intrusion	*Perimeter – Perimeter zones  *Line crossing – Lines  *Object – Lost and found objects
Line Crossing	*Object – Lost and found objects
Stationary Object	
Pedestrian Detection	
Face Detection	
Cross Counting	

# 8.1 Display settings

# 8.1.1 Live



# 8.1.2 Image Control



# 8.1.2.1 Day/Night Mode

Auto	In low-light conditions, the camera automatically changes into monochrome mode.
Color only	The image always stays in color
B/W only	The image always stays monochrome
Day/Night delay	The minimal time (in seconds) between switching from color to B/W mode.

# 8.1.2.2 Flip, Mirror, Corridor



Normal image



Flipped image



Mirrored



Mirrored and flipped



Corridor

# 8.1.2.3 BLC Backlight compensation



BLC off



BLC on

# 8.1.2.4 Noise filter





Noise filter off

Noise filter on

Please note: A high noise filter level makes dark images clearer and removes image noise. However, a high noise filter level can lead to ghosting and less sharpness.

**8.1.2.5 WDR (Widy Dynamic Range)**WDR provides a clear image in situations with strong light/dark contrasts or backlighting.

# 1. Outdoor



WDR off



WDR on

# 2. Indoor





WDR off WDR on

# WDR Level



WDR Medium



WDR High

Please note:

WDR can cause image noise.

# 8.1.2.6 AGC (Amplification)

AGC amplifies light in low-light conditions



AGC low



AGC medium



AGC high

Please note: A high AGC level can lead to more image noise.

#### 8.1.2.7 White balance

Use white balance for an accurate display

# Options:

Auto	Automatic
Manuell	Manually correct colors
Indoor	Only for indoor areas

# 8.1.2.8 Shutter-mode

Auto	Automatic shutter time. Limited by shutter time settings
Manual	Camera uses set shutter time.

#### 8.1.2.9 Shutter time

The shutter time determines how long the camera's shutter stays open and how much light hits the image sensor

In low-light conditions the shutter must be opened longer, so more light reaches the sensor.

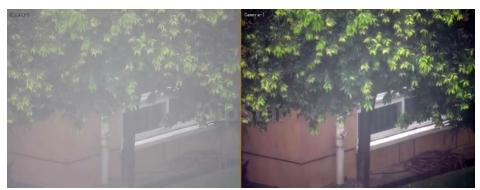
A possible side effect is motion blur.

# Usage scenarios:

1/20000-1/1000	Very bright scenes, for example metal processing, fire
1/500-1/100	Number plates of fast moving vehicles
1/100-1/50	Number plates of slow moving vehicles
1/25	Running humans
1/15-1/8	Walking humans
1/5	Highest light sensitivity

# 8.1.2.10 Defog

Defog uses algorithms to display a clear image even in foggy conditions.

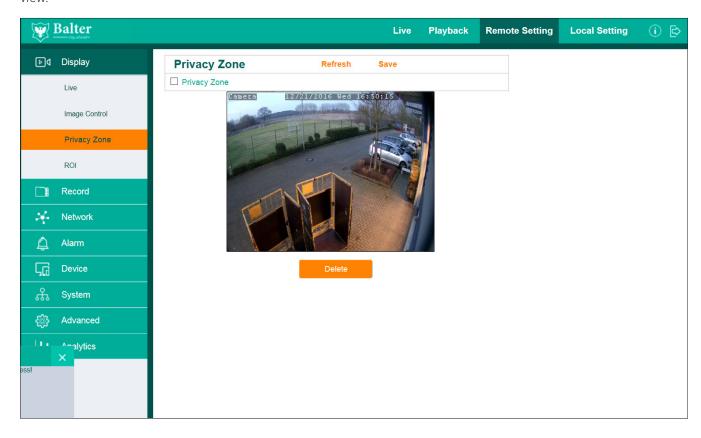


Defog off Defog on

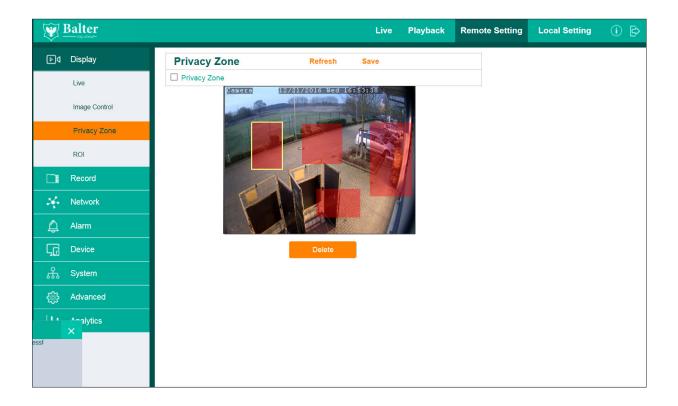
# 8.1.3 Privacy masking

Privacy masking allows you to hide areas from recording.

For each camera 4 areas can be designated freely - these areas will neither be recorded, nor shown in live view.



# 8.1.3.1 Activating and selecting masking zones



- 1. Activate "Privacy Zone".
- 2. Designate the desired areas.
- 3. Click "Save"

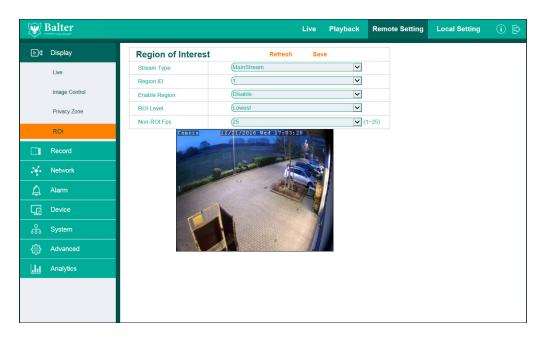


#### 8.1.3.2 Deleting Privacy zones

- 1. Click on a Privacy Zones. This zone will be marked yellow.
- 2. Click "Delete"
- 3. Click "Save"

#### 8.1.4 ROI

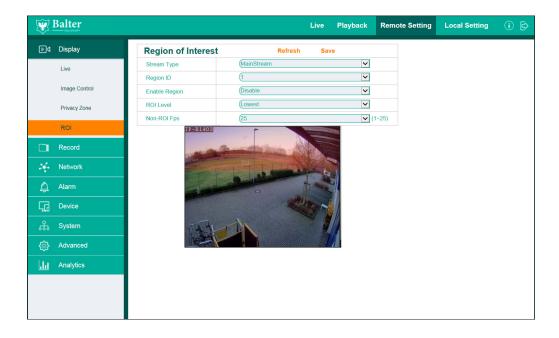
ROI optimizes bandwith usage without quality losses in important areas. With ROI you can monitor different parts of an image in different qualities.



Stream Type	ROI for Mainstream or Substream.
Region ID	You can select up to 8 ROI areas
Enable Region	Activate or deactivate selected area for ROI.
ROI Level	Image quality in selected ROI areas.
Non-ROI Fps	Image rate for non-ROI areas.

# 8.1.4.1 Selecting ROI areas

- 1. Select an area
- 2. Click "Activate" in the menu "activate area"
- 3. Choose the video quality for the selected area in the menu "ROI level"
- 4. Choose the image rate for the rest of the image in the menu "Non-ROI fps"
- 5. Click "Save"
- 6. If you want to select more than one area, choose additional areas in the menu "Area ID".



Please note: If you want to select the areas with the best quality, you need to change the image quality for the rest of the image to "worst quality".

You can change the video quality for the rest of the image vie "Network -> Video transmission".

# 8.1.4.2 Deactivate ROI areas

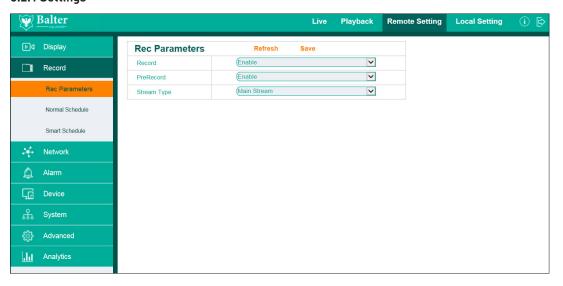
- 1. Select the desired "Area ID"
- 2. Choose "Deactivate" in the menu "Activate Area"
- 3. Click "Save"

# 8.2 Record

This function is only available with cameras with a microSD cardslot.

In the menu "Recording" you can adjust the settings for recording to a microSD card.

### 8.2.1 Settings



Recording	Activate/Deactivate recording onto an SD card
Prealarm recording	When this function is activated, a short video will be recorded before every occurrence recording.
Stream Type	Mainstream(best Quality) or Substream (longer duration)

#### 8.2.2 Schedule

In this menu you can schedule recordings.



# 8.2.2.1 Creating a schedule

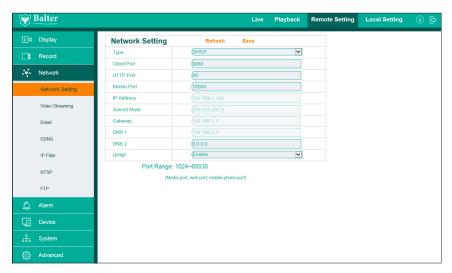
- 1. Each color represents a recording type and each box represents a 30 minute period . Choose the desired recording type.
- 2. You can create a separate recording schedule for each day. If you want to copy the created schedule to all other days, click "Copy".
- 3. Click "Save".

# 8.2.2.2 Deleting a schedule

Click "Standard", to reset the schedule to factory settings.

# 8.3 Network

# 8.3.1 Network Settings



Тур	DHCP: IP Settings will be automatically carried over from the router. Static: Manual entry of IP, Subnet mask, Gateway and DNS
Client Port	Port for CMS, App and Video transmission
HTTP Port	Port for Web Interface
Mobile Port	Port for App
IP Adresse	IP Address
Subnetz mask	Subnet mask (Standard: 255.255.255.0)
Gateway	Gateway (Your router's IP address)
DNS 1,2	DNS (Your router's IP address)
UPNP	UPNP

#### 8.3.2 Video Streaming

Via the menu "Video Streaming" you can adjust parameters like bitrate, resolution for each stream.

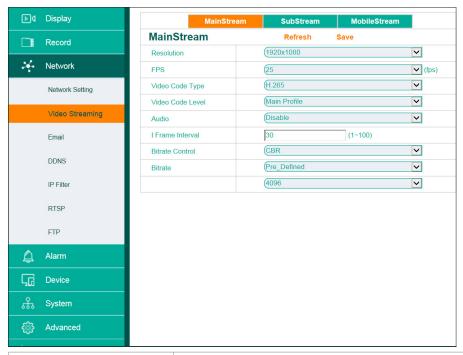
3 Streamtyps are supported:

Main Stream – High resolution

Sub Stream – Medium resolution

Mobile Stream – Low resolution

You can switch between these streamtypes during live transmission.

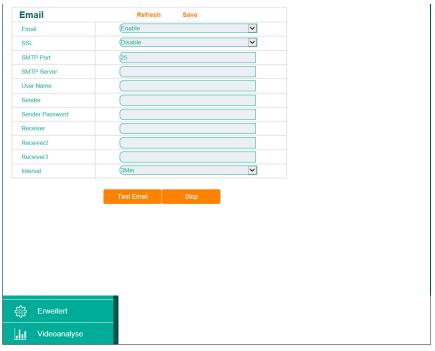


Main Stream, Sub Stream, Mobile Stream	You can adjust the settings for each stream type separately.
Resolution	Resolution. The higher, the better.
Fps	Images per second.
Video Code Type	Compression method. You can choose from H.264 and H.265. The latter compresses images more efficiently while maintaining the image quality, however a powerful computer is needed to view videos that are encoded with H.265
Video code level	Baseline (Profile) Primary profile for lowercost applications with limited hardware ressources.  Main (Profile) This profile is used for broadcast and other elaborate applications.  High (Profil) High definition profile primarily used for high definition TV applications.  You can't select profiles when using H.265.
I-Frame Interval	I-Frames are a feature of MPEG encoded compression methods to efficiently transmit videos. An I-Frame is a complete image, the following images (B- and P-images) reference the I-Frame and only display the differences.  The I-Frame defines how many seconds pass until the next I-Frame is recorded.

D:	VDD V · II I · ·
Bitrate Control	VBR – Variable bitrate When using VBR, you can select a video quality level.
	VBR is a video coding method that controls the bitrate corresponding to movements and the amount of detail in a scene.
	In a simple scene, for example an empty hallway, a high compression will be used, the bitrate and the transmitted data will be lower, resulting in less bandwith usage.
	In scenes with a high amount of detail and lots of movements the compression rate will be lowered to achive high image quality.
	CBR – Constant bitrate When using CBR the bitrate will not change and remain at an user-defined level. This way users can reliably predict the amount of bandwith and storage space used. CBR is best used when only a limited bandwidth/storage capacity is available.
Bitrate	The bitrate determines the amount of data that is transmitted in a certain amount of time. This amount is mostly measured in seconds. The higher the bitrate, the better the image quality since the image will be compressed less and more information will be transmitted. With rising bitrates the amount of storage capacity needed and bandwidth used also rises.  Choosing a bitrate too high may lead to image freezes in live videos. When choosing a bitrate, the resolution of the video and framerate should be taken into consideration.
	Please note: If you desire a smooth image without stuttering via internet, do not select a bitrate that is higher than the upload speed of your internet connection, use SubStream or MobileStream or consider upgrading your internet connection.

#### 8.3.3 Email

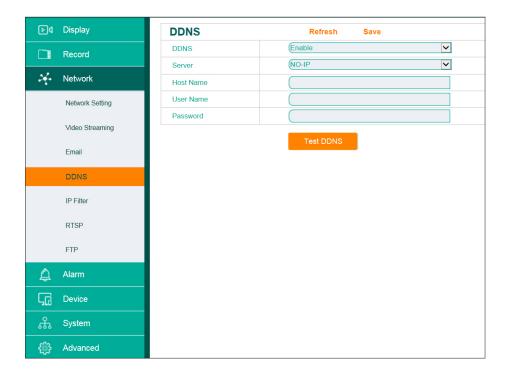
This function notifies you via email in case of an occurrence. Contact you email provider to learn your SMTP data.



Email	Activate/deactivate email.
SSL	SSL Encryption
SMTP Port	SMTP Port. Standard Ports: 25,587,465
SMTP Server	SMTP Server
Sender	Sender email address
Sender Password	Password
Receiver	Recipient email address
Interval	Min. interval between emails.
Email Test	Test settings

#### 8.3.4 DDNS

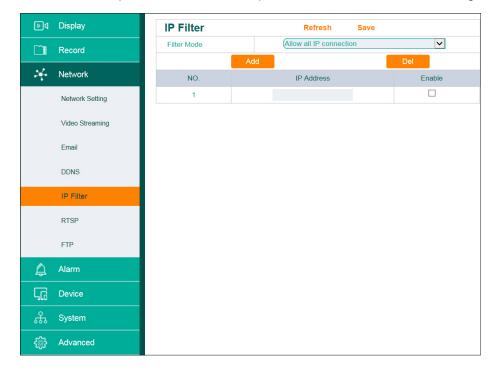
Dynamic DNS or DDNS updates domains in the Domain Name System (DNS) dynamically. For example a camera will change its domain entry quickly after a change in its IP address. This way a camera or NVR is always available under the same domain name, even if the user doesnt know its current IP address.



The supported services are www.dyndns.org and www.no-ip.com.

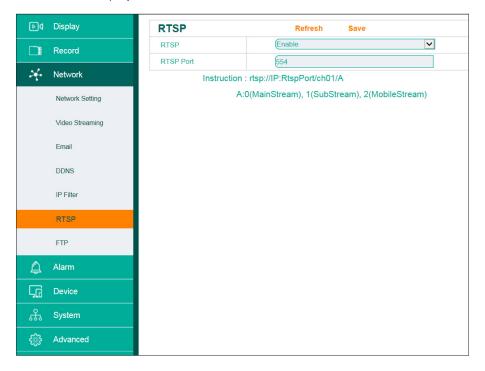
#### 8.3.5 IP Filter

With the IP filter you can block or allow specified IP addresses from accessing the camea.



#### 8.3.6 RTSP

The RTSP allows you to view your camera's livestream on RTSP capable devices or software (for example the free VLC media player).



RTSP Streams

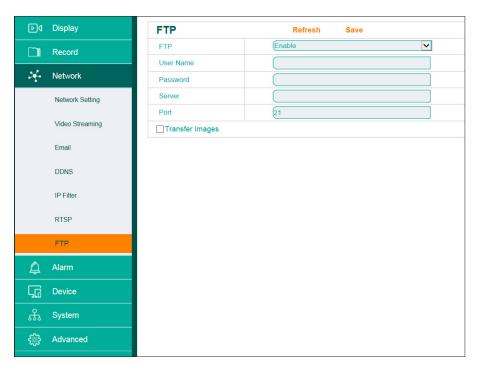
Main Stream: rtsp://IP:554/ch00/A Sub Main Stream: rtsp://IP:554/ch00/1 Mobile Stream: rtsp://IP:554/ch00/2

RTSP streams are password protected.

Username and password are identical to the camera's user name and password.

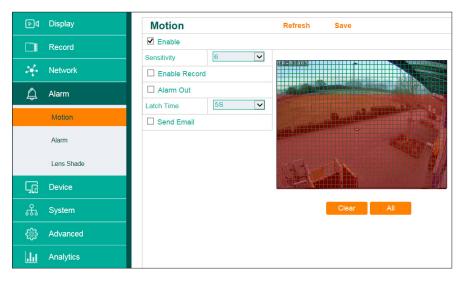
#### 8.3.7 FTP

In case of an occurrence the FTP function can save images onto a remote FTP server.



# 8.4 Alarm

# 8.4.1 Motion Detection



Activate	Activate/Deactivate motion detection
Sensititvity	Adjust sensitivity in 7 levels
Activate recording	Activate recordings onto an SD card
Afteralarm recording	Recording time after a movement
Alarm output	Activate Alarm Output if a motion is detected
Activation time	Activation time of the alarm output
Send email	Send email if a motion is detected
Empty	Empty marked areas
All	Select the whole image

# 8.4.1.1 Adjust the motion detection

By standard, the whole image is selected for motion detection.

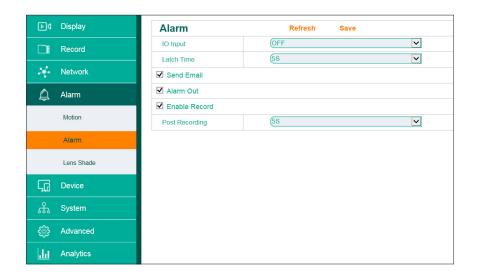
If you want to active motion detection only for certain areas of the image, use the mouse.

The areas marked red are selected for motion detection.

# 8.4.2 Alarm Output

Alarm input and output settings

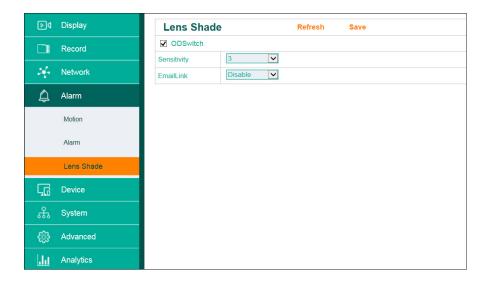
Using the alarm inputs you can connect external devices (for example motion detectors) to the camera.



Alarminput	Activate/deactivate alarm onput
Activation time	Activation time for alarm outputAktivierungszeit für Alarmausgang
Email versenden	Email versenden
Alarm Ausgang	Alarm-Ausgang aktivieren
Aufnahme aktivieren	Aufnahme auf eine Micro SD Karte aktivieren
Nachalarmaufnahme	Aufnahmezeit nach dem Ereignis

# 8.4.3 Lens Shade

Activate this function to receive an email in case the camera lens is being covered.



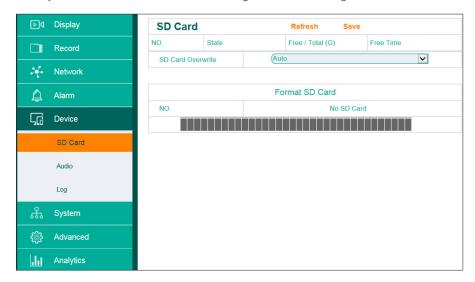
Pleas note: This function serves only as a reminder. Fals alarms cannot be ruled out.

# 8.5 Device

#### 8.5.1 Micro SD Card

This function is only accessible when a camera with an SD cardslot is connected..

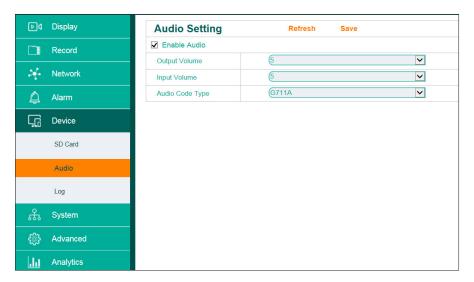
Here you can format the SD card, change the overwriting mode and view the card's status.



Please note: The status display works only with continuous recording, not with moreion recording.ung.

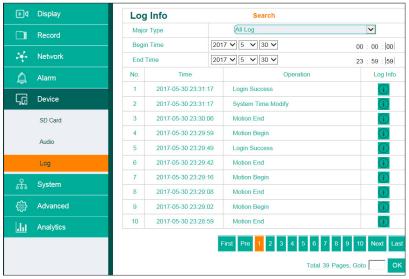
#### 8.5.2 Audio

This function is only available for cameras with an audio input. Click "Enable Audio" to activate the audio transmission.



#### 8.5.3 Log

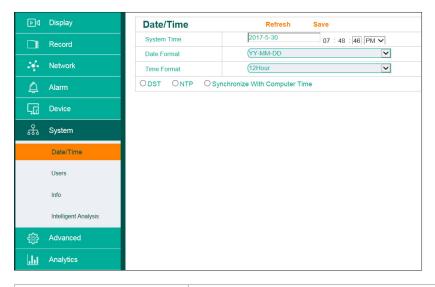
The log gives you an overview of every incident relating the camera.



- 1. Choose the type of log via "Major Type" aus.
- 2. Select the begin- and end time.
- 3. Click "Search".

# 8.6 System

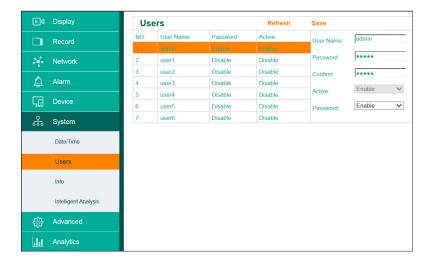
### 8.6.1 Date/Time



System Time	Time and date
Date Format	DD/MM/YY(Day/Month/Year), MM/DD/YY(Month/Day/Year), YY/MM/DD (Year/Month/Day)
Time Format	24 hour/12 hour
DST	Daylight Savings Time
NTP	Synchronize time via network
Synchronize With Computer Time	Synchronize the camera's time with the computer's time

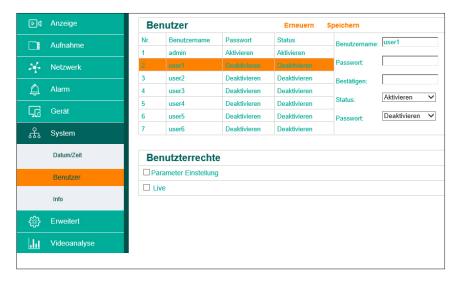
#### 8.6.2 Users

In this menu you can change passwords, assign rights and activate/deactivate users.



There are 2 user types. A maximum of 7 users can be registered.

admin	Administrator, wields all rights and cannot be deactivated.
user	User



Every user can be assigned following rights:

Parameter Settings	Change settings
Live	User can view the camera's live images

#### 8.6.3 Info - P2P QR Code

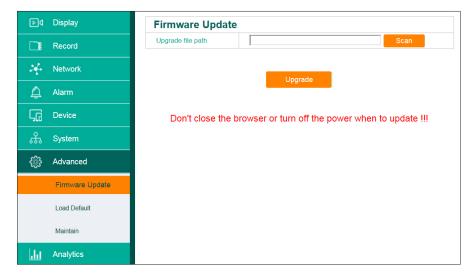
In this menu you can see the devices' QR-Code and system information



# 8.7 Advanced

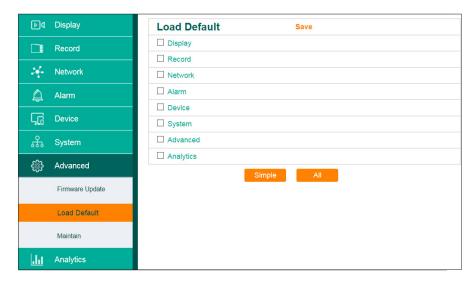
# 8.7.1 Firmware Update

In this menu you can update your camera's firmware.



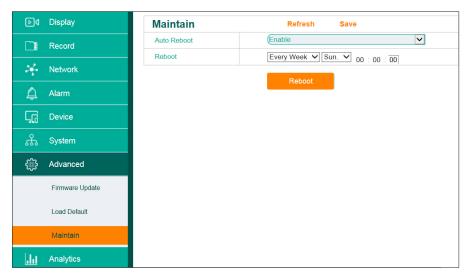
- 1. Click "Scan"
- 2. Navigate to a "Firmware" file
- 3. Click "Upgrade"

#### 8.7.2 Load Default



Reset all parameters	Click "All" than click "Save"
Reset select parameters	Select the desired parameters, than click "Save"

#### 8.7.3 Maintain



Auto Reboot	Select "Enable" to automatically restart the camera once a week
Reboot	Manually reboot the camera

# 8.8 Analytics

A permanent, automated analysis of image contents saves time and efficiently monitors the surroundings.

#### 8.8.1 Perimeter Intrusion

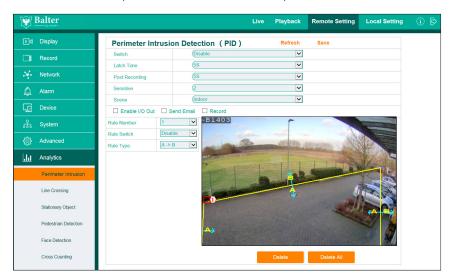
Recognizes intrusion into a user-defined perimeter.



Switch	Activate/deactivate perimeter intrusion
Sensitive	Select Sensitivity in 4 levels
Scene	Indoor/Outdoor
Send E-mail	Sends an email in case of an perimeter intrusion
Rule Number	Select up to 4 perimeters
Rule Switch	Activate/deactivate a perimeter
Rule Type	Direction recognition A - > B - Recognizes movement from inside the perimeter to outside the perimeter
	$\ensuremath{B}\xspace - > \ensuremath{A}\xspace$ - Recognizes movement from outside the perimeter to inside the perimeter
	A < > B - Recognizes movement in both directions

#### 8.8.1.1 Setting Perimeter Areas

- 1. Select "Enable" in the menu "Switch".
- 2. Select "Outdoor" or "Indoor" in the menu "Scene"
- 3. Select "Send Email", if you want to receive email notifications.
- 4. Select "Activate" in the menu " Menü Regel aus.
- 5. Select the desired direction recognition in the menu "Rule Type"
- 6. Draw a perimeter area in the video preview box
- 7. Click "Save"
- 8. If you want to specify more than one perimeter area select another number in the menu "Rule Number" and draw a new perimeter area in the video preview box.



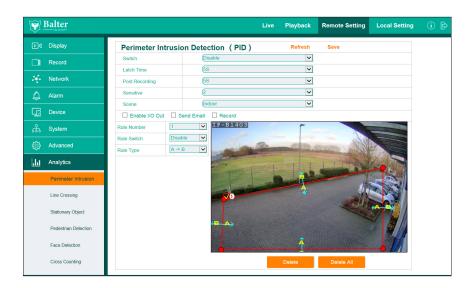
Perimeter areas are displayed as a red line.

Incoming/Outgoing objects will be highlighted and the movement direction will be indicated by a green line.



# 8.8.1.2 Changing Perimeter Areas

- 1. Each Perimeter Area is labeled 1-4
- 2. Click the desired area to select it. The selected area will turn red. Drag the corners to adjust the area.



# 8.8.1.3 Deleting a Perimeter Area

1. Select an area and click "Delete".

# 8.8.2 Line Crossing

Recognizes the crossing of a line.



Switch	Activate/deactivate function
Latch Time	Alarmtime
Post Recording	Recording after occurence
Sensitive	Select Sensitivity (4 levels)
Scene	Outdoor/Indoor
Enable I/O Out	Activate Alarm Output
Send Email	Send an Email with an image
Record	Activate recordind onto SD card
Rule Number	You can define up to 4 lines.
Rule Switch	Activate/deactivate a line
Rule type	Direction recognition A - > B - Recognizes line crossing from A to B B - > A - Recognizes Line Crossing from B to A A < > B - Recognizes line crossing in both directions.

#### 8.2.2.1 Defining Lines

- 1. Select "Activate" in the menu "Switch"
- 2. Choose between "Outdoor" or "Indoor" in the menu "Scene"
- 3. Toggle "Send Email" if you want to receive Email notifications.
- 4. Select "Enable" in the menu "Rule Switch".
- 5. Select the desired direction recognition in the menu "Rule Type".
- 6. Draw a line inside the preview box.
- 7. Click "Save"
- 8. If you want to define another line, select another number in the "Rule Number" menu



Specified lines will be displayed in the preview box.

Objects that cross the line in the set direction will be highlighted. The direction of movement will be shown with a green line.



# 8.8.2.2 Editing Lines

- 1. Each line is labelled with a number (1-4) next to a box. Click the box of the line you want to edit.
- 2. The selected line will be highlighted in red. Drag the endpoints to adjust the line.

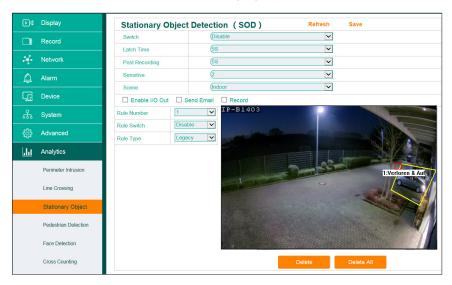


# 8.8.2.3 Deleting a Line

1. Select a line and click "Delete".

# 8.8.3 Objects - Lost and Found Objects

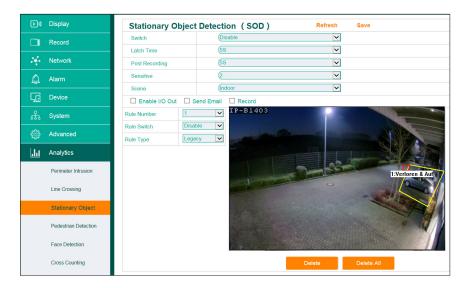
This function detects lost and/or emerging objects in a specified area.



Switch	Activate/deactivate the function
Latch Time	Alarmtime
Post Recording	Recording after occurrence
Sensitive	Change Sensitivity in 4 levels
Scene	Outdoor/Indoor
Enable I/O Out	Activate alarm output
Send Email	Send an Email with an attached picture
Record	Activate recordings onto an SD card.
Rule Number	You can specify up to 4 areas.
Rule Switch	Activate/Deactivate Area
Rule Type	Legacy - Recognizes emerging objects Lost - Recognizes lost objects Both - Recognizes both lost and emerging objects

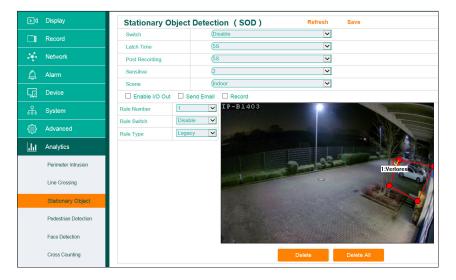
#### 8.8.3.1 Specifying Areas

- 1. Select "Activate" in the menu "Switch"
- 2.Select "Outdoor" or "Indoor" in the menu "Scene"
- 3. Toggle "Send Email" if you wish to be notified by email
- 4. Select "Activate" int the menu "Rule"
- 5. Wählen Sie die gewünschte Objekterkennung im Menü "Regeltyp" aus
- 6.Draw an area into the video preview box
- 7.Click "Save"
- 8.If you wish to specify more areas, select a new number from the menu "Rule Number" and draw another area.





Lost objects will be highlighted red. Emerging objects will be highlighted green.



# 8.8.3.2 Editing Areas

- 1.Each area is labelled with a number (1-4). Click on the area you want to edit.
- 2. The selected area is highlighted red. Drag the corners to adjust the area.

# 8.8.3.3 Deleting an Area

1.Select an area and click "Delete"

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