ABUS Wi-Fi Network Video Recorder
TVVR36500

User guide

Version 1.2, 04/27/2017

English

This user guide contains important installation and operation information.

Make sure that this user guide is handed over when the product is given to other persons.

Keep this user guide to consult later.

You will find a list of contents with the corresponding page numbers in the contents.

Important safety information

Explanation of symbols

The following symbols are used in this guide and on the device:

Symbol	Signal word	Meaning
	Warning	Indicates a risk of injury or health hazards.
	Warning	Indicates a risk of injury or health hazards caused by electrical voltage.
	Important	Indicates possible damage to the device/accessories.
	Note	Indicates important information.

The following annotations are used in the text:

	Meaning
1. … 2. …	Required action to be carried out in a set order
• … • …	List without a set order, given either in the text or warning notice

Intended use

Only use the device for the purpose for which it was built and designed. Any other use is considered unintended!

This device may only be used for the following purpose(s):

- This 4-channel video recorder is used in combination with connected video signal sources (network cameras) and video output devices (TFT monitors) for object surveillance.

Note

Data storage is subject to national data privacy guidelines.

When carrying out the installation, advise your customers of the existence of these guidelines.

General

Before using this device for the first time, please read the following instructions carefully and observe all warning information, even if you are familiar with the use of electronic devices.

Warning

All guarantee claims are invalid in the event of damage caused by non-compliance with this user guide.

We cannot be held liable for resulting damage.

Warning

In the event of personal or material damage caused by improper operation or non-compliance with the safety information, we cannot be held liable.

All guarantee claims are void in such cases.

Retain this handbook for future reference.

If you sell or pass on the device to third parties, you must include these instructions with the device.

This device has been manufactured in accordance with international safety standards.

Power supply

- Only operate this device through a power source which supplies the mains power specified on the type plate.
- If you are unsure of the power supply available to you, contact your energy provider.

Warning

Prevent data loss.

Always use the device with an uninterruptable power supply UPS with surge protection.

- Disconnect the device from the power supply before carrying out maintenance or installation work.
- The on/off switch on this device does not fully disconnect it from the mains supply.
- To fully disconnect the device completely from the mains, the mains plug must be withdrawn from the mains socket. The device should therefore be positioned so that there is always direct and unimpeded access to the mains plug and the plug can be removed immediately in the event of an emergency.

- To eliminate the risk of fire, the mains plug should be removed from the mains socket prior to an extended period of non-use. Prior to unstable weather and/or when there is a danger of lightning strike, separate the device from the mains network. Alternatively, connect the device to a UPS.

Warning

Never open the device yourself! There is the danger of electric shock.

Should it be necessary to open the device, refer to trained technicians or your specialist installation contractor.

- The installation or replacement of a hard disk drive should only be carried out by trained personnel or your specialist installation contractor.

Warning

Installations or modifications not carried out by trained technicians invalidate the warranty.

We recommend that the installation of a hard disk drive is carried out by a specialist installation contractor.

Improper installation of the hard disk drive invalidates the warranty.

Overload/overvoltage

- Avoid overloading electrical sockets, extension cables and adapters, as this can result in fire or electric shock.
- Use surge protection to prevent damage caused by overvoltage (e.g. in electrical storms).

Cable

- Always grasp all cables by the plug connector and do not pull the cable itself.
- Never grasp the power cable with wet hands, as this can cause a short circuit or electric shock.
- Do not place the device itself, items of furniture or other heavy objects on the cable and ensure that it does not become kinked, especially at the connector plug and at the connection sockets.
- Never tie a knot in the cable and do not bundle it together with other cables.
- All cables should be laid so that they cannot be trodden on, or cause a hazard.
- Damaged power cables can cause fire or electric shock. Check the power cable from time to time.
- Do not modify or manipulate the power cable or plug.
- Do not use any adapter plug or extension cable that does not conform to applicable safety standards, and do not interfere with the mains or power cables.

Installation location/operating environment

- Place the device on a firm, level surface and do not place any heavy objects on the device.
- The device is not designed for operation in spaces with high temperatures or humidity (e.g. bathrooms), or excessive accumulation of dust.
- Operating temperature and operating humidity: 0°C to 40°C, maximum 90% relative humidity. The device may only be operated in a temperate climate.

Ensure that:

- adequate ventilation is always guaranteed (do not place the device on a shelf, thick carpet, bed or wherever ventilation slits may be covered. Always leave a 10 cm gap on all sides)
- no direct sources of heat (e.g. radiators) can affect the device
- the device must not be exposed to direct sunlight or strong artificial light
- the device is not in the immediate vicinity of magnetic fields (e.g. loudspeakers)
- no naked lights (e.g. lit candles) are on, or next to the device
- contact with sprayed or dripping water and caustic fluids is prevented
- the device is not operated in the vicinity of water, in particular, the device should never be submerged (do not place objects containing fluids, e.g. vases or drinks, on or near the device)
- no foreign bodies penetrate the device
- the device is not exposed to wide temperature variations, as otherwise there may be condensation from humidity causing electrical short circuits
- the device is not exposed to excessive shock or vibration.

Care and maintenance

Maintenance is necessary if the device has been damaged (e.g. damage to the power cable and plug, or the housing), or if liquids or foreign bodies have got into the interior of the device, or if it has been exposed to rain or damp, or if it does not work properly or has been dropped.

- When conducting maintenance work (e.g. cleaning), disconnect the device from the mains.
- If smoke, unusual noises or smells develop, switch the device off immediately and unplug from the socket. In such cases, the device should not be used until it has been inspected by a qualified technician.
- Have all maintenance tasks carried out by qualified technicians only.
- Never open the housing on the device or accessories. If the housing is open, there is the risk of fatal electric shock.
- Clean the device housing and the remote control with a damp cloth.
- Do not use solvents, white spirit, thinners etc. These may damage the surface of the device.
- Do not use any of the following substances:
  Brine, insect spray, solvents containing chlorine or acids (ammonium chloride), or scouring powder.
- Rub the surface gently with the cotton cloth until it is completely dry.

Warning

The device operates with a dangerous voltage level. The device should therefore only be opened by authorised technicians. All servicing and maintenance tasks must be carried out by authorised companies. Inadequate repair work can cause a fatal hazard for the user.

Accessories

- Only connect devices that are expressly suitable for the intended purpose. Otherwise, hazardous situations or damage to the device can occur.

Start-up

- Observe all safety and operating instructions before operating the device for the first time.
- Only open the housing to install the hard disk drive.

Warning

When installing the device in an existing video surveillance system, ensure that all devices have been disconnected from the mains power circuit and low-voltage circuit.

Warning

If in doubt, have a specialist technician carry out assembly, installation and connection of the device.

Improper or unprofessional work on the power supply system or domestic installations puts both you and others at risk.

Connect the installations so that the mains power circuit and low-voltage circuit always run separately from each other. They should not be connected at any point or become connected as a result of a malfunction.

Children

- Do not allow electrical devices to be handled by children. Do not allow children to use electrical devices unsupervised. Children may not properly identify possible hazards. Small parts may be fatal if swallowed.
- Also keep packaging film away from children. There is the risk of suffocation.
- This device is not intended for children. If used incorrectly, parts under spring tension may fly out and cause injury to children (e.g. to eyes).

Introduction

Dear Customer,

Thank you for purchasing this product.

ABUS Security-Center hereby declares that this type of wireless system TVVR36500, complies with RED Directive 2014/53/EU. Additionally, this device complies with the requirements of the following EU directives: the EMC Directive 2014/30/EU and the RoHS Directive 2011/65/EU. The full EU Declaration of Conformity text can be found at:

www.abus.com/product/TVVR36500

To ensure this condition is maintained and that safe operation is guaranteed, it is your obligation to observe this user guide.

Please read the entire user guide carefully before putting the product into operation, and pay attention to all operating instructions and safety information.

If you have any questions, please contact your specialist installation contractor or specialist dealer.

Disclaimer

This user guide has been produced with the greatest of care. Should you identify any omissions or inaccuracies, please contact us at the address shown on the back of the guide. ABUS Security-Center GmbH does not accept any liability for technical and typographical errors, and reserves the right to make changes to the product and user guides at any time and without prior warning. ABUS Security-Center GmbH is not liable or responsible for direct or indirect damage resulting from the equipment, performance and use of this product. No guarantee is made for the contents of this document.

General information

To use the device properly, read this user handbook thoroughly and retain it for later use.

This handbook contains instructions for the operation and maintenance of the recorder. Please contact an authorised specialist company for repair of the device.

Note

Be aware that alterations to the recorder carried out via the software must be accepted by clicking “Apply”/“Confirm” before leaving the tab or menu.

Unpacking the device

Handle the device with extreme care when unpacking it.

Packaging and packaging aids can be reused and, as far as possible, should be sent for recycling.

We recommend the following:

Paper, cardboard and corrugated cardboard as well as plastic packaging items should be placed in the appropriate recycling containers.

If no such facility exists in the area, these materials should be put into the general household waste.

If the original packaging has been damaged, start by inspecting the device. If the device shows signs of damage, return it in the original packaging and contact the manufacturer.

Scope of delivery of the recorder

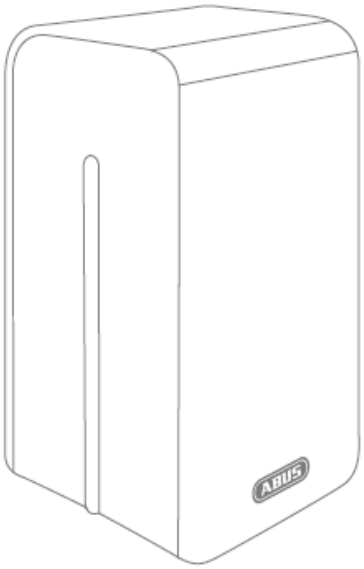
- ABUS 4-channel Wi-Fi Network Video Recorder
- USB mouse
- PSU
- Network cable
- CD
- Quickstart guide

Scope of delivery of video surveillance sets

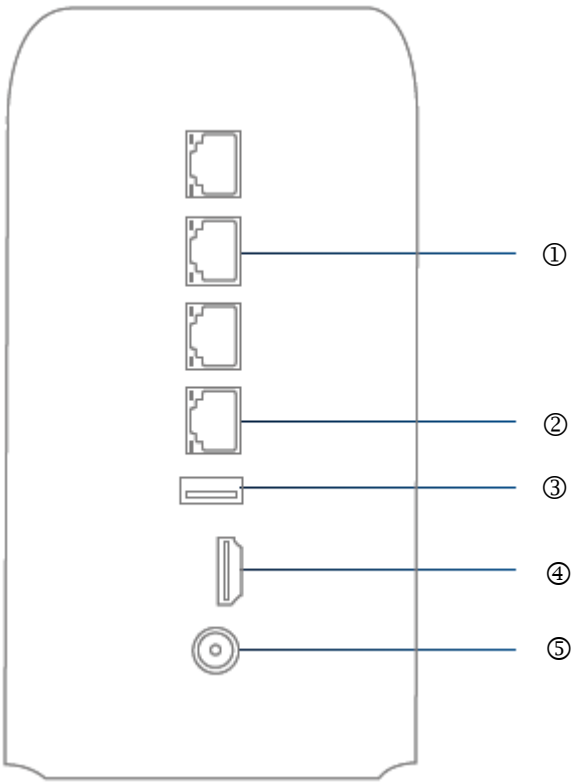
- ABUS 4-channel Wi-Fi Network Video Recorder
- 2 x Wi-Fi network cameras
- Pre-installed 2.5" 1 TB hard disk drive
- USB mouse
- 3 x power supply units for recorders and cameras
- Network cable
- CD
- Quickstart guide

Device overview

Front



Rear



System displays/Systemoperation

Status displays

The following status displays provide information about the operating status:

- LED on the front of the device
- Icons (display elements) on the monitor

Note
Note the remarks in the separate quickstart guide.

LED illumination

Note
Refer to the overview on page10.

Status	Role
Lit blue continuously	System status OK
Off	Device is switched off.

General

The device can be controlled using the following:

- USB mouse
- Web interface
- CMS software

Operating with a mouse

Note
The further descriptions contained in this user guide involve using a mouse.
The device is suitable for use with a USB mouse. Connect the mouse to the USB port.

Button	Role
Left	**Single-click** Selection in the menu, activation of an input field or a tab, display of the Quick Set menu.
	Double-click Switch between the screen display of single and multiple images in the live view and during playback. **Click and drag** Set up private masks or alarm zones
Right	**Single-click** Open the pop-up menu. Return to the previous menu.
Scroll wheel	**In live view** display previous/next camera

On-screen keyboard

If you click with the mouse in a text input field, the on-screen keyboard appears:

For simple figure input, the following on-screen keyboard appears:

The keys have exactly the same function as a computer keyboard.

- To input a figure, click on it with the left mouse key.
- To finish the entry, click on **Enter**.
- To delete the figure in front of the cursor, click on ←.
- To switch between upper and lower case text, click on the framed **a**. The active setting is indicated above the keyboard.
- To cancel an entry, or to leave the field, click on ESC.

Quickstart guide

Before you start

The following preparations must be completed:

- 1. Pay attention to the general information, safety information as well as statements on placement and connection, see page7.
- 2. Check the contents of the package for completeness and damage.

Note
Note the remarks in the separate quickstart guide.

Connections at the back of the device

Note
Refer to the overview on page10.

No.	Name Role
1	**3x RJ45 - Ethernet** Ethernet connections for additional devices
2	**RJ45 - Router** Ethernet connection for the router
3	**USB** Connection for a mouse
4	**HDMI** Connection for a HDMI monitor
5	**Power supply** 12 V DC

Installing the hard disk drive

Warning
Switch the device off and disconnect it from the mains electricity.
Ensure proper grounding to avoid static discharge.

1. To install a hard disk drive, see separate quickstart guide.
2. Open the lower flap on the recorder
3. Push the hard disk drive into the intended slot
4. Check that the hard disk drive is mounted correctly to the recorder's plug connections
5. Close the housing

Note
Only use hard disk drives that are authorised for video recording and 24/7 operation.

Make the connections

Note
Observe the minimum radius when laying the cables. Do not kink the cables.

1. Connect all cameras to the recorder.
2. Connect the recorder to the router via the network cable. (Router port)
3. Connect the monitor using the HDMI connection.
4. Connect the mouse to the USB port.
5. Connect the device to the mains power supply, it will then start automatically. The video surveillance sets also include a distributor cable which enables multiple cameras and the recorder to be operated using a single power supply unit.

Starting the device

Important
The device may only be connected to a mains voltage supply as specified on the type plate.
For security purposes, use an uninterruptible power supply (UPS).

When the device is connected to the power supply, it starts up automatically and the LED status bar glows.

1. During the start-up procedure, the device carries out a self-test. The fan will also be tested during the device's start-up procedure and then switches to a quiet mode.
2. Finally, the setup wizard appears. Click on this to go to live view.

Configuring the device

Note
Note the remarks in the separate quickstart guide.

- Carry out the individual steps in the ‘setup wizard’, see page14.
- The following settings are configured one after the other: (Sequence)
  - Select the operator console language
  - Administrator configuration
  - Time settings (date, time etc.)
  - Access point settings
  - Network settings
  - Hard disk drive management (initialisation etc.)
  - Camera settings
  - Recording settings

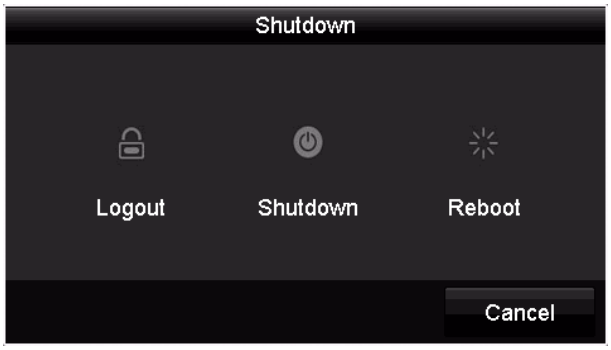
Note
From the ABUS home-page (www.abus.com), find out if new firmware updates are available for this device and install these.

Note
Later alteration of date and time can lead to loss of data.

Note the explanation of:

Switching off the device, locking, rebooting

In the main menu, click on Shutdown. The overview appears.



1. To switch off, select the **Shutdown** option and confirm the query with **Yes**. The device is switched off. Now pull out the plug of the power supply unit.
2. To lock the system, select the left hand symbol **Logout**. The user interface is locked. To reach the menu, a password must be entered.
3. To reboot, select the right hand symbol **Reboot**. The device carries out a reboot.

Switching on the device

- Plug in the power supply unit to start the device.

Local setup wizard

Recorder password note

Warning

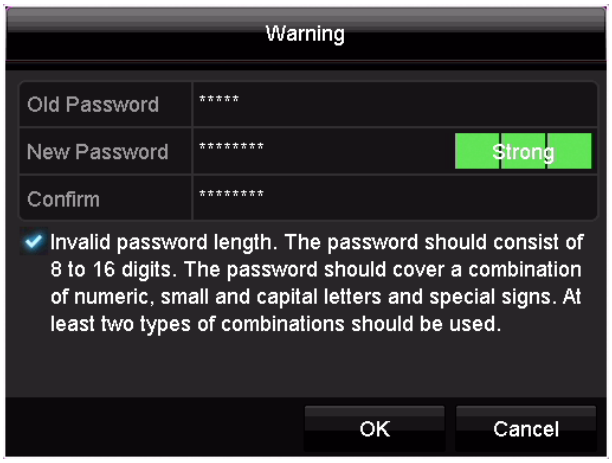
Note down the admin password.

The preset password is:

“**1 2 3 4 5**”.

Each time the device is started it will be checked if the preset admin password “12345” has already been changed. If it has not been changed, a notice reminding you to change the password will appear each time.

Click on **Yes** to change the recorder password.



Enter the preset password “12345” and enter a new password for your recorder. Pursuant to the description, this must be made up of 8–16 characters and fulfil two of the three specified criteria.

Then press ‘Ok’ to save the changes.

Camera password note

Each time the device is started it will also be checked if the preset camera password is used for one of the added cameras. Then a message will be displayed. Please find the preset password and follow the necessary steps to change it as described in the respective camera manual.

Note

Once you have changed the password on the camera, this password must also be stored under the camera on the recorder.

Click on ‘Ok’ to acknowledge the message.

Setting up the system

The setup wizard guides you through the required basic settings for the system. The network video recorder will then be ready for recording and monitoring.

Note

All the advanced settings can be found in the device menu, see the overview on page25.

The first time you switch on the recorder, the language selection will appear:

- Click on the input field and select your language from the list. To proceed, click on ✓. The following query appears:

- Click on **Next** to start the wizard.

Note

After the system has been set up the ‘checkbox’ can be deactivated, the tick is hidden and the wizard no longer starts automatically.

Administrator set up

1. Click on the input field and enter the admin password.

   If you have already changed the password, enter the password you selected here.
2. To assign a new password, enable the ‘checkbox’ in front of **New Admin Password**.
3. Enter the new password and confirm the entry in the field below.
4. Click on **Next**.

System time and date

1. Enter the system time consisting of date and time.
2. Finish the setting by clicking on **Next**.

Access point settings

1. The SSID is the name of the Wi-Fi network created by the recorder. Change the name to one of your choice
2. Set the security mode.
   (Recommended: WPA2-PSK)
3. The key is the password necessary for connection to the recorder's Wi-Fi network. Change the password to one of your choice. It must contain at least eight characters.
4. Finish the setting by clicking on **Next**.

Note

Changing the SSID settings can take up to two minutes.

Network settings

Note

Ask the network administrator responsible whether the DHCP can be selected or the IP address and additional settings have to be done manually.

1. DHCP active: if the DHCP has been set up in the network router, activate the DHCP 'checkbox' All network settings are then completed automatically.
2. DHCP inactive: enter the data manually (IPv4 address, IPv4 subnet mask as well as the default set up for the IPv4 Gateway = IPv4 address of the router). Alternatively you can also enter the address of the DNS server, which is required for email dispatch.

   A typical address assignment could appear as follows:

   - IPv4 address: 192.168.0.50
   - IPv4 subnet mask: 255.255.255.0
   - IPv4 default gateway: 192.168.0.1
   - Preferred DNS server: 192.168.0.1

Note

When the device is accessed remotely via the internet, it should be given a fixed network address.

Note

If at the time of the initial installation there is no detailed data on port and DDNS configuration, then use the default settings recommended by the wizard.

1. Server port: network port for remote access via PC software and App
2. HTTP port: network port for remote access to the web interface of the recorder.
3. Enable UPnP: enables the automatic configuration of the port releases on the router and device display in the windows network environment.
4. Enable DDNS: enables the DDNS function for comparison of the external IP addresses with a DDNS provider.
5. DDNS type: select the DDNS provider. There is free DDNS access via abus-server.com.
6. Server address: not necessary for ABUS server.
7. User name and password: not necessary for ABUS server.

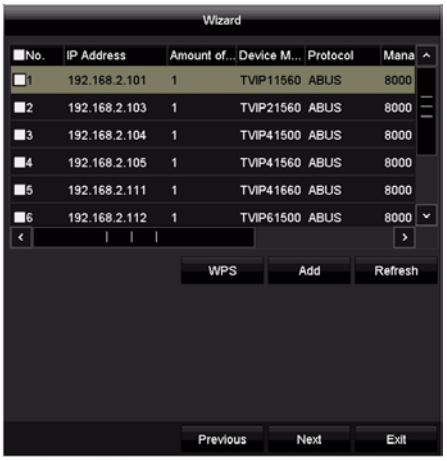
Hard disk drive management

1. To set up a hard disk drive, enable the ‘checkbox’ with a left click and then click on Init.

Warning
This will delete all data found on the disc.

2. Click on **OK** to acknowledge the security prompt. The hard disk drive is set up for use. Progress is shown on the status bar.
3. Complete the setting by selecting **OK** and then click on **Next**.

Camera assistant



1. Using WPS you can quickly and easily establish a Wi-Fi connection between a camera and the recorder. To do this, click on **WPS** and follow the instructions. Before you can then search for and add the camera, wait the two minutes as displayed until the camera has established a connection with the recorder. Only one camera can be connected during each WPS procedure

Note
If the installation via WPS function was not properly functioning for a camera, the alternative ist to connect the camera with a network-cable with on of the three LAN-Ports of the recorder. Use then a PC to gain access of the Webinterface of the camera. There you can setup the WiFi-connection to the recorder manually in the Configuration -> advanced settings -> network -> WiFI menu.

2. Click on **Search** to display the network cameras in your network.
3. To add network cameras, arm the desired cameras and click on Add.
4. Click on **Next** to continue with the setup.

Camera recording

1. Choose continuous recording to activate continuous recording for all channels.
5. Choose motion recording to activate motion-detection-based recording for all channels.
6. Finish the setting and the setup wizard with **OK**.

Web interface setup wizard

IP installer

If the recorder has been connected to your network, you can search for it using the IP installer.

To do this, insert the CD provided into your PC. Alternatively you can download the installation file from the www.abus.com website.

Following installation, launch the IP Installer. Make sure that you have the most current version of the IP installer. You will see this indicated on the icon (red circle)

Then, search for the recorder. The web interface is automatically opened by a double-click on the entry.

Login

At the start of the setup wizard, first log in with the preset user.

User name: admin

Password: 12345

Warning

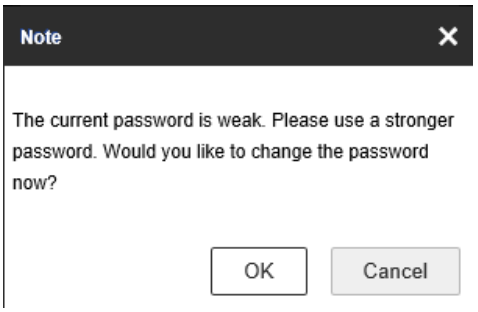
Note down the admin password.

The preset password is:

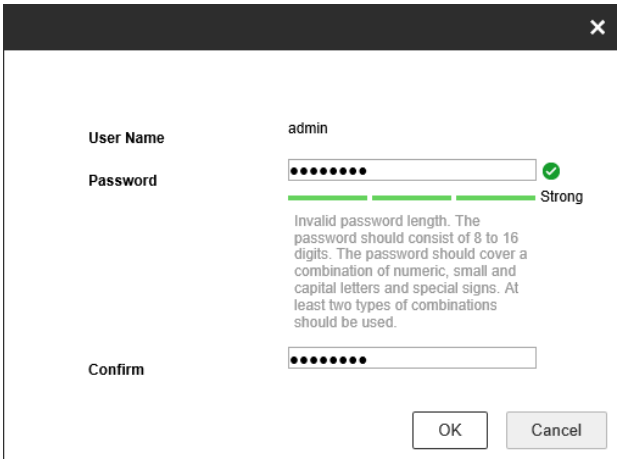
“**1 2 3 4 5**”.

Recorder password note

Each time the device is started it will be checked if the preset admin password “12345” has already been changed. If this has not been changed, a notice will appear following each login reminding you to make the change.



Click on **OK** to change the recorder password.



Enter the preset password “12345” and enter a new password for your recorder. Pursuant to the description, this must be made up of 8–16 characters and fulfil two of the three specified criteria.

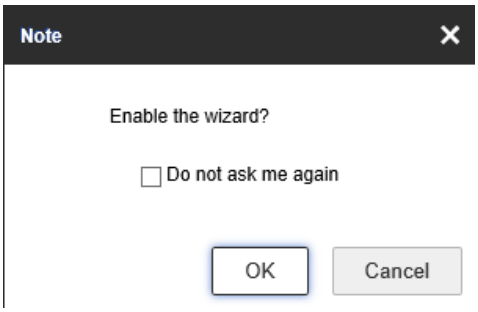
Then press ‘Ok’ to save the changes.

Setting up the system

The setup wizard guides you through the required basic settings for the system. The network video recorder will then be ready for recording and monitoring.

Note

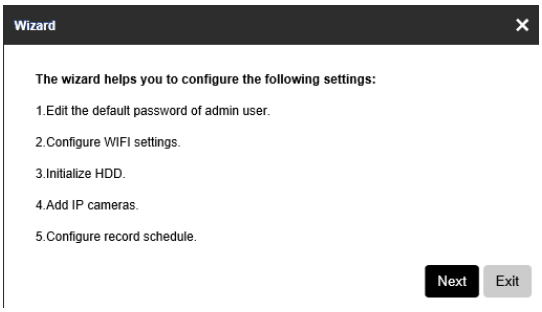
All the advanced settings can be found in the device menu, see the overview on page25.



- Click on **OK** to start the setup wizard.

Note

If you activate the checkbox, the setup wizard will not automatically pop up the next time you log in. This will be saved on the relevant browser. If you use another PC to access the recorder via the web interface, this notification will pop up there again.



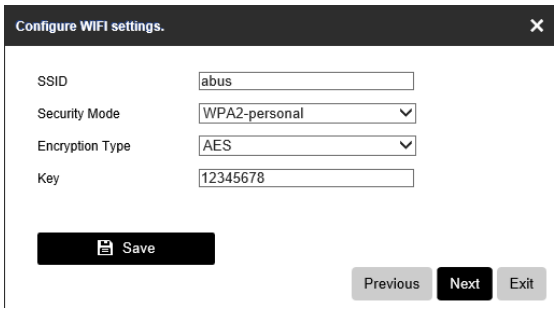
- A short breakdown shows you the included points. Click on **Continue**.

Administrator set up

1. Click on the input field and enter the admin password.

   If you have already changed the password, enter the password you selected here.
2. Enter the new password and confirm the entry in the field below.
3. Click on **Save**.
4. Click on **Continue**.

Access point settings



1. The SSID is the name of the Wi-Fi network created by the recorder. Change the name to one of your choice
2. Set the security mode.

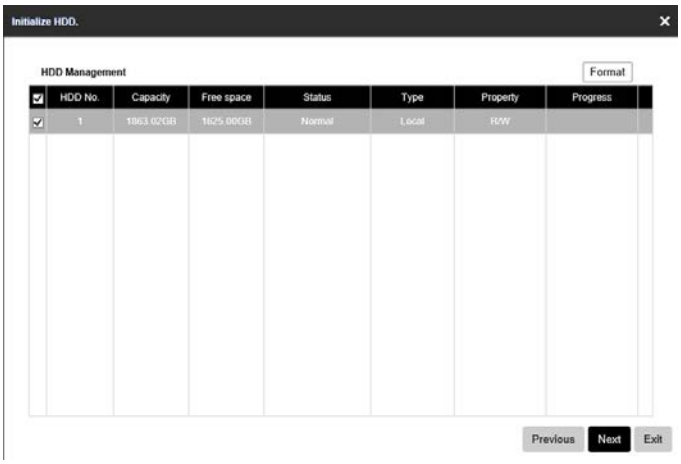
   (Recommended: WPA2-PSK)
3. Set the encryption type.

   (Recommended: AES)
4. The key is the password necessary for connection to the recorder's Wi-Fi network. Change the password to one of your choice. It must contain at least eight characters.
5. Click on **Save**.
6. Click on **Continue**.

Note

Changing the SSID settings can take up to two minutes.

Hard disk drive management

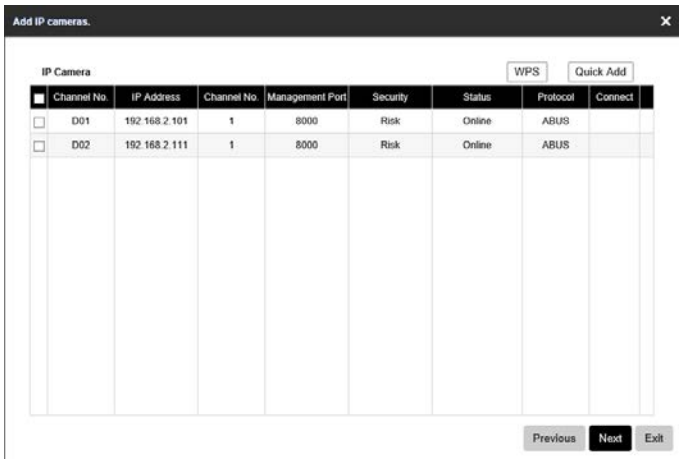


1. To set up a hard disk drive, enable the ‘checkbox’ with a left click and then click on Format.

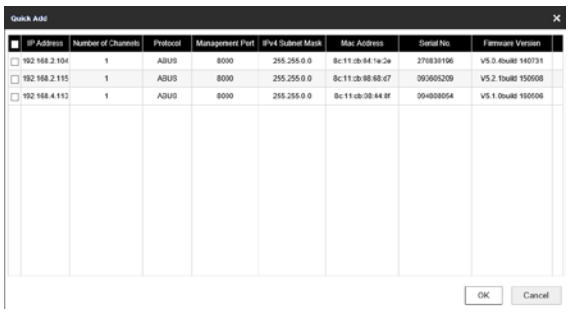
Warning
This will delete all data found on the disc.

2. Click on **OK** to acknowledge the security prompt. The hard disk drive is set up for use. Progress is shown on the status bar.
3. Complete the setting by selecting **OK** and then click on **Continue**.

Camera assistant

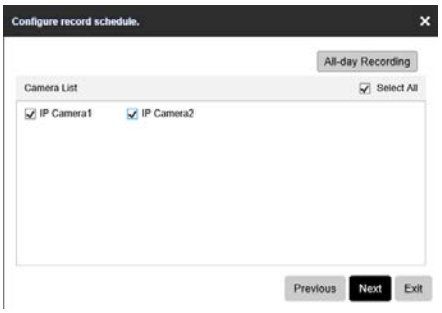


1. Using WPS you can quickly and easily establish a Wi-Fi connection between a camera and the recorder. To do this, click on the WPS key and follow the instructions. Before you can then search for and add the camera, wait the two minutes as displayed until the camera has established a connection with the recorder. Only one camera can be connected during each WPS procedure
2. Click on **Quickadd** to display the network cameras in your network.

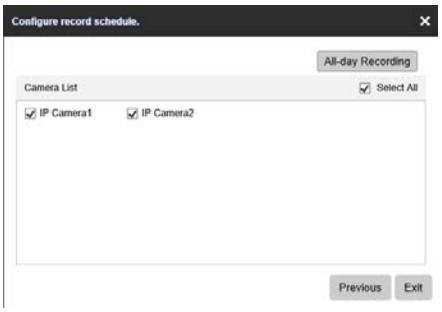


3. To add network cameras, make your selection and click on **OK**.
4. Click on **Continue** to continue with the setup.

Camera recording



1. Select the desired cameras and click on **All-day Recording** to activate continuous recording for those cameras.
2. Then click on **Continue.**

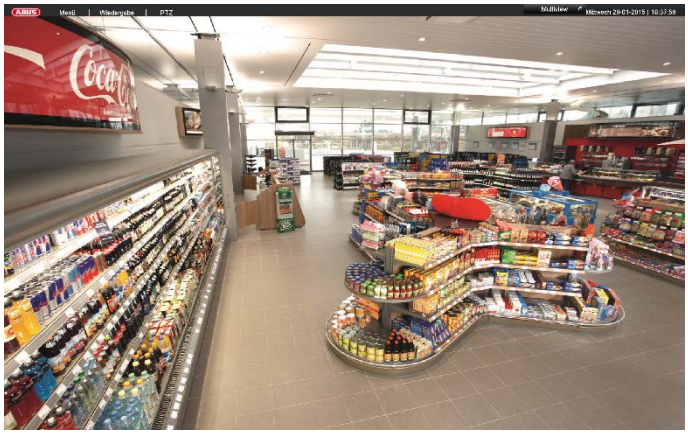


3. Complete the setting and the setup wizard by selecting **Exit**.

Live view

Overview

Live view starts automatically when the device is switched on.

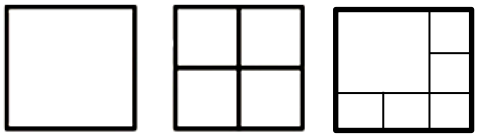


The following menus are found in the header:

- Menu and
- Playback

The device date and time are displayed on the right-hand side of the header. To the left, you will find the multi view.

- Click on the icon to open the pop-up menu of the multi view.
- Click on one of the icons in the pop-up bar that appears in order to switch between the different views.



The signals of the connected cameras are displayed on the main screen.

- By double clicking with the left mouse button, you can display the selected camera image in full screen or switch back to the original view.

Status symbols

- The following symbols are displayed depending on the operating status of the device:

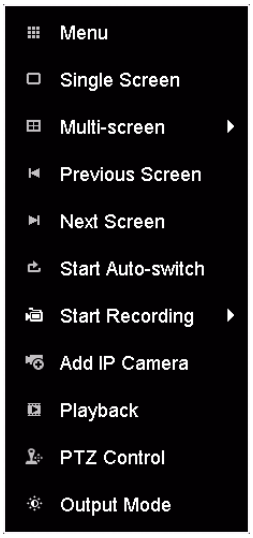
Symbol	Meaning
R	Yellow: motion recording • recording only upon motion detection
R	Blue: Recording • continuous recording

Pop-up menu with mouse operation

Note

Right click when the mouse pointer is positioned on a live image.

The following settings can be made. The arrow pointing to the right indicates that a sub-menu opens for selection:



General menu	Selection of preset menus
Menu	Opens the main menu
Full Screen	Full screen view of a camera
Multi-screen	Various camera layouts
Previous Screen	Displays the previous screen
Next Screen	Displays the next screen
Start Auto-switch	Starts the camera sequence display
Start Recording	Start all cameras' motion-detection-based or continuous recording.
Add network camera	Adds additional network cameras
Playback	Switches to playback mode
PTZ	Open PTZ menu
Monitor Mode	Starts the monitor mode

Note

Start Auto-switch:

Specify the display sequence delay in the display settings.

Selection bar in the camera image

In single or multi-screen, click on a camera image. A selection bar will appear:

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)

No.	Meaning of the symbol
(1)	Area for moving the miniature bar
(2)	Activate/deactivate manual recording
(3)	Instant playback of the last five minutes
(4)	Activate/deactivate the audio function
(5)	Open the PTZ control menu (for PTZ cameras only)
(6)	Enable digital zoom
(7)	Image display settings
(8)	More image settings
(9)	Live-image stream settings
(10)	Display of the current streaming information.
(11)	Close the selection bar

Settings

Note

The following settings are available for the live view.

Open the main menu and click on Configuration. Then click on Live View:

The following settings are available in the General tab:

Video Output Interface	HDMI Select the connection where the settings are changed.
Live View Mode	Various camera layouts 1x1, 2x2, 1+5.
Dwell Time	Switching time between the individual cameras during auto-switch.
Enable Audio Output	Activates the audio output (HDMI) for the live view.
Display status bar	Activate/deactivate the status bar.
Volume	Control volume
Event Output	Allocate monitor for the output of events.
Full Screen Monitoring Dwell Time	The number of seconds for which the event will be displayed on the allocated monitor.
Post-Event Display Time	The number of seconds for which the pop-up window should be displayed in the event of an alarm.

Setting the camera output

You can display a maximum of six cameras simultaneously in live view.

1. Click on the View tab:

2. Select the display mode.
   - 1 x 1
   - 2 x 2
   - 1 + 5
3. Use the navigation keys to allocate the required camera signal to the corresponding screen section.

- The **X** setting means that this particular camera is not being displayed.

4. Click on **Apply** to apply the setting.

Playback in live view

General

There are three different options for playback:

- Through the event search in the main menu
- From the live display
- Via Log Information in the maintenance menu.

Note

The “Previous/Next file/day/event” buttons are allocated as follows, depending on the playback mode:

Normal playback:
Pressing one of the buttons switches playback to the previous/next day.

Event search:
Pressing one of the buttons switches playback to the previous/next event.

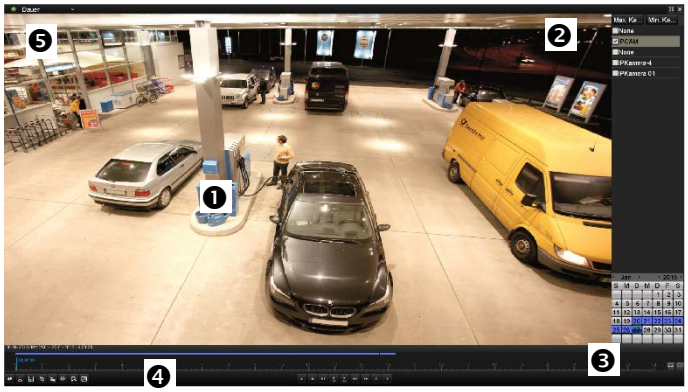
Data export:
Pressing one of the buttons switches playback to the previous/next file.

Note

It is possible to start playback on up to four camera channels with 1080p or six camera channels with 720p at the same time.

Playback screen

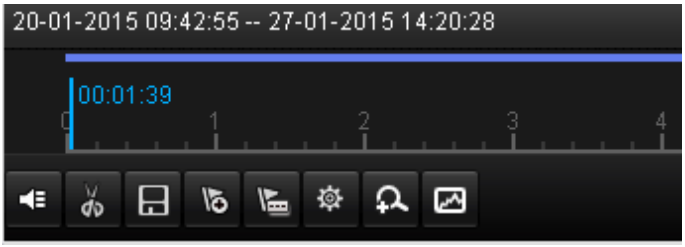
Playback is controlled via the control panel:



No.	Area
❶	Running playback with date and time
❷	Selection of camera for playback
❸	Calendar with recording type
❹	Control panel with time bar (see right)
❺	Selection of playback type

Control via the control panel

The control panel (4) is used to control running playback. The symbols have the following meanings:



(1)

(2) (3) (4) (5) (6) (7) (8) (9)

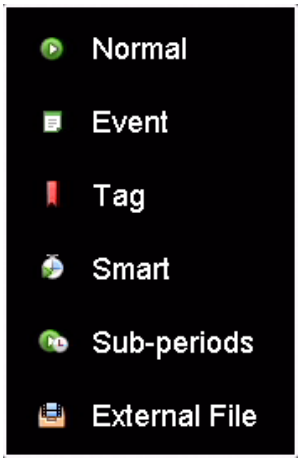
(10) (11) (12) (13) (14) (15) (16) (17) (18)

(19) (20)

No.	Meaning of the symbol
1	Time bar: Click on the time bar with the mouse to continue playback from another point. Click on the slider and drag it to a specific time to start playback from that point.
2	Enable/disable audio output
3	Start/stop video clip export
4	Save video clip
5	Add tag (see “Tag” playback type)
6	Add user-defined tag (see “Tag” playback type)
7	Tag management
8	Digital zoom
9	Smart search: By creating a search window, motion data is displayed from the recordings in the selected viewing area in the time bar. Important: Smart search is only possible for playback on one camera.
10	Reverse playback
11	Stop playback
12	Start/pause playback
13	Go back 30 seconds
14	Go forward 30 seconds
15	Go forward in slow-motion (8x → 1x)
16	Fast forward (1x → 8x)
17	Previous day
18	Next day
19	Reduce time bar section
20	Increase time bar section

Selecting playback type

Selecting the playback type (5) allows various types of recording and events to be displayed and filtered in the playback view.



The following menus are available:

Type	Description
Duration	Playback of recorded video data.
Event	Search and playback of video data recorded by means of motion detection or alarm input.
Tag	Search and playback of video data which has been provided with a tag.
Smart	Search and playback of video data via predefined full screen motion detection for all recorded data.
Multi-timeshift	Start the multi-timeshift playback of a camera. Multi-timeshift divides the recordings from one camera on one day into four segments (each six hours) that can all be played at once.
External file	Search and playback of video data found on a connected external data storage device (USB).

Device menu

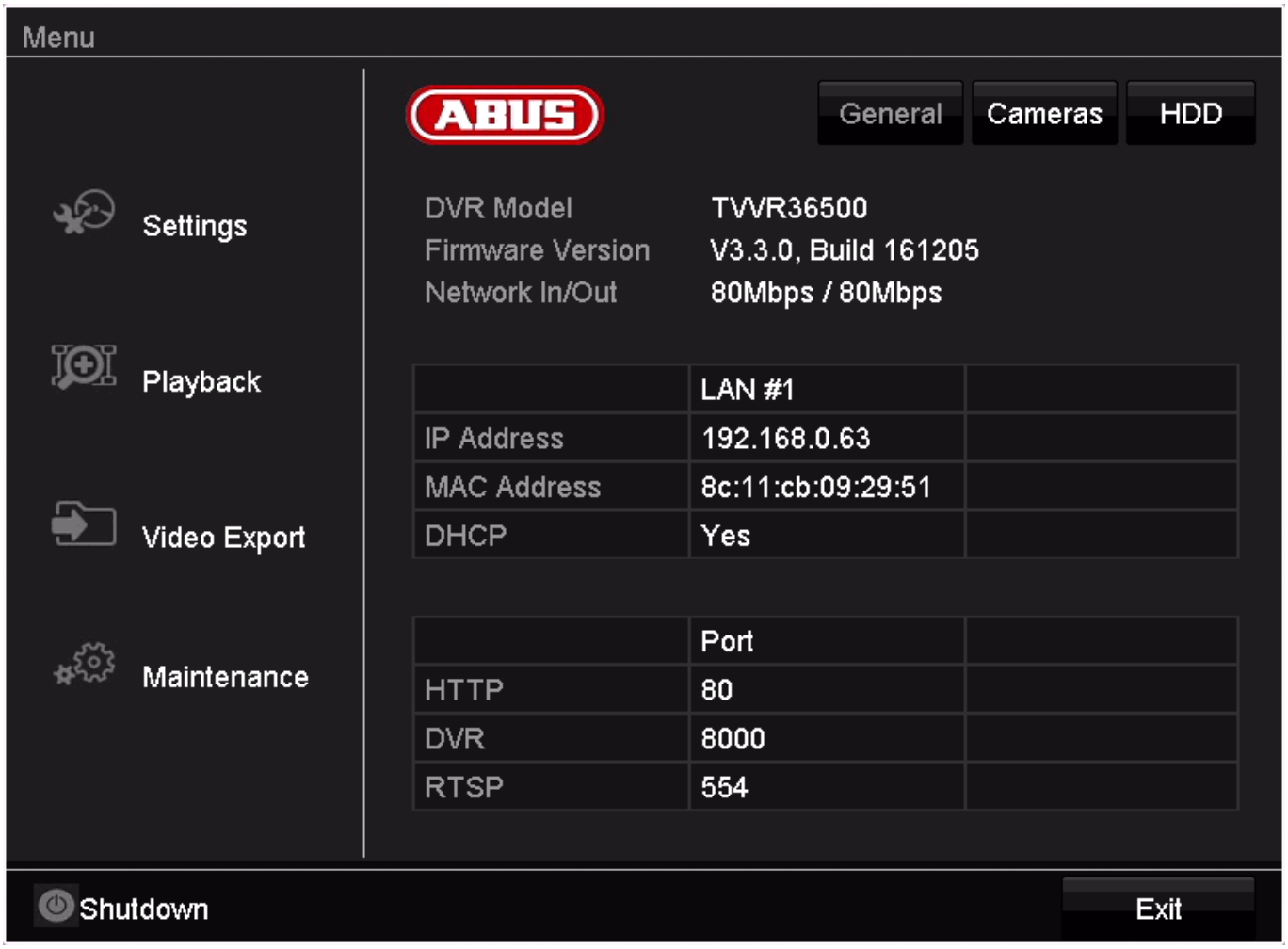
Menu overview

The following menu overview shows the main menus used to set and control the device.

You can also see important information about your device on the right-hand side.

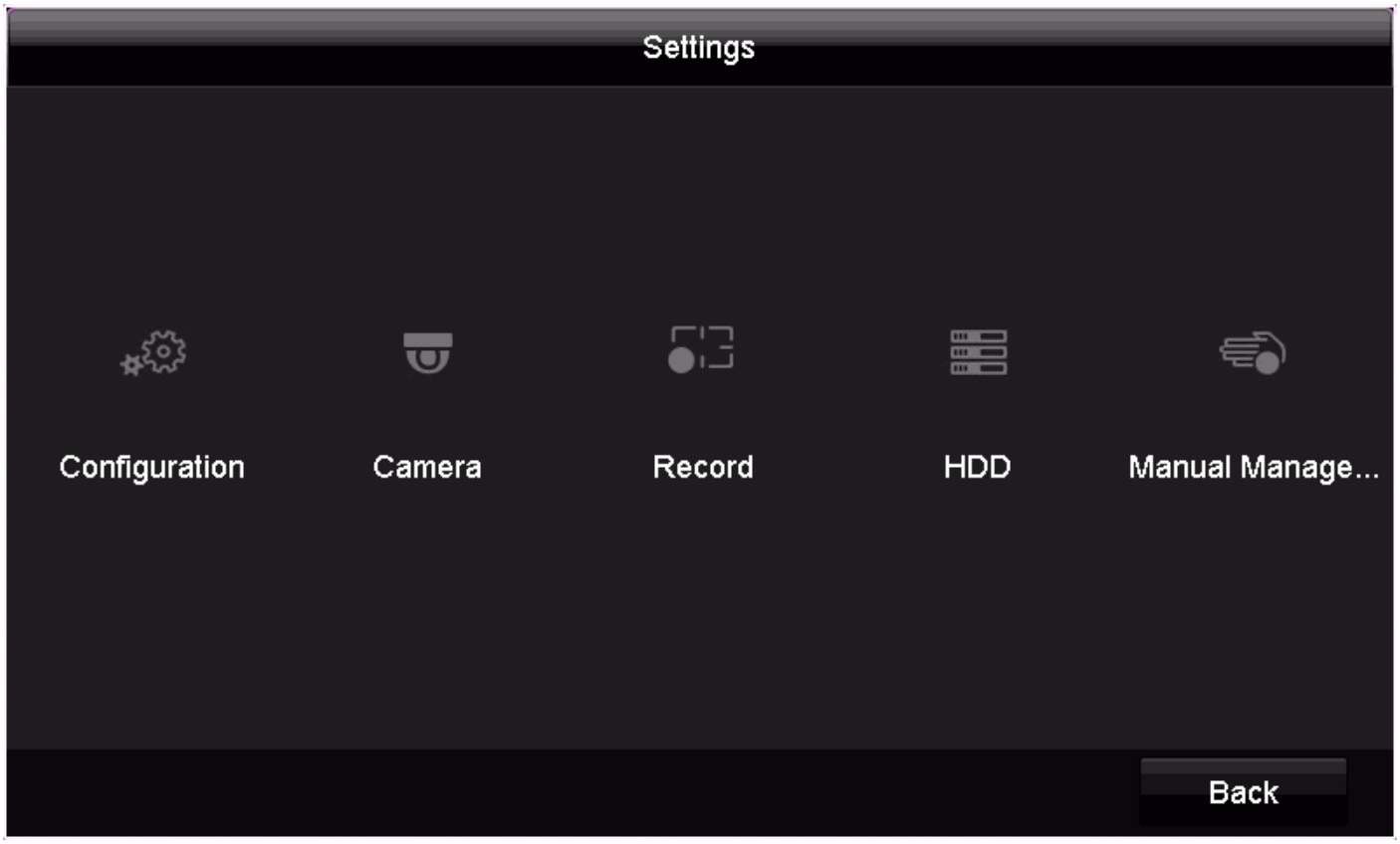
Click on the menu you need to open it.

- Click on Exit to close the menu overview.



Menu	Description
Settings	Leads to the Configuration, Camera, Recording, HDD and Playback menus.
Playback	Parameter-controlled search for video or image recordings which were triggered by events such as motion detection, as well as tags set in playback.
Video export	Parameter-controlled search for video or image recordings which were triggered by events such as alarms or motion detection, as well as alarm events and tags set in playback.
Maintenance	System information, searching logs, importing/exporting configurations, device maintenance such as upgrading to new firmware, loading defaults, displaying traffic.

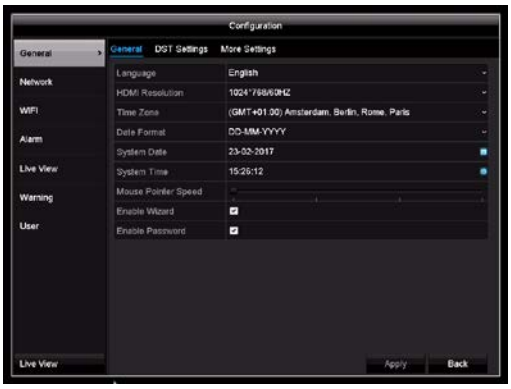
Settings



Menu description

Menu	Description
Configuration	Used to manage all device settings (General, Network, Live View, Warning and User).
Camera	Menu for setting camera parameters (OSD configuration, image mode, motion detection, private zone, tamper monitoring and video loss).
Recording	Menu for setting recording parameters (time schedule, camera resolution, holiday etc.)
HDD	Used to initialise and manage a built-in hard disk drive (assign read/write functionality, cameras, manage network drive etc.)
Panic recording	Menu for setting manual recordings.

Configuration



Note

The Configuration menu is used to manage all device settings.

Warning

Ensure that the date and time are set correctly.

NOTE:

Subsequent alterations may lead to loss of data.

Ensure data is backed up beforehand.

Overview

Menu	Setting
General	Language, video, time, date, mouse, password, daylight saving time and other settings
Network	Required network settings (manual IP, DHCP, PPPOE, DDNS etc.) and overview of network status
Wi-Fi	Access point settings
Alarm	Settings for the alarm I/Os for the IP cameras
Live view	Display settings and assignment of the event output
Exceptions	Response of the device in exceptional cases (hard disk drive full, network disconnected etc.)
User	Adding and changing users and assigning access rights

General settings

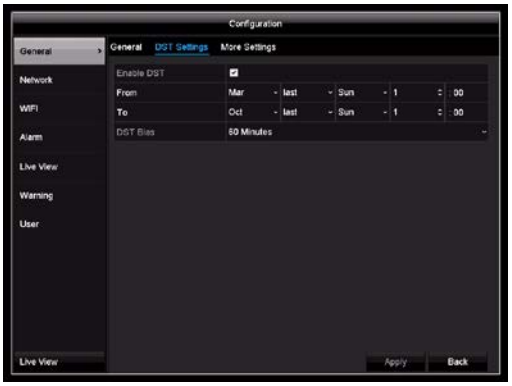
Tab	Setting
General	General system settings
DST settings	Daylight saving time settings
More settings	More system settings

General tab

Parameter	Setting
Language	On-screen display language
Resolution	Monitor resolution
Time zone	GMT (Greenwich Mean Time)
Date format	MM-DD-YYYY, DD-MM-YYYY, YYYY-MM-DD
System time	Date, time
Mouse pointer speed	Slider (left = low speed, right = high speed)
Enable wizard	Box ticked: The wizard will appear when the system is started up.

Enable password	Box not ticked: A password does not need to be entered into the recorder itself. However, the password does need to be entered if accessing via the network. Box ticked: The password needs to be entered in order to use the menu.

DST settings tab



Parameter	Setting
Enable DST	If the box is ticked, a specific start/end date can be selected.
From/to	Start/end date for daylight saving time
DST bias	Daylight Saving Time bias: correction of daylight saving time to reference time

More Settings tab

Parameter	Settings
Name	Unique specification of the device
No.	Used for unique identification when using CMS software
Auto. log off	Never/1–30 minutes: controls how long the menu is displayed before it is hidden again

Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

General network

It is essential that the network settings are correct if you

- want to control the device and monitor remotely via your browser.

Note
Please read the following general instructions before setting up the device.

A network is the connection of at least two network-compatible devices.

Transmission methods:

- wired networks (e.g. CAT5 cable)
- wireless networks (Wi-Fi)
- other transmission types (Powerline)

All systems have significant similarities but are different in various ways.

Terms

Below there is an overview of terms related to using the device on networks.

Parameter	Setting
IP address	An IP address is the unique address of a network device on a network. It must only appear once on a network. Certain IP address ranges are reserved for public networks, such as the internet.
Private address range	E.g. 10.0.0.0–10.255.255.255 Subnet mask 255.0.0.0 172.16.0.0–172.31.255.255 Subnet mask 255.255.0.0 192.168.0.0–192.168.255.255 Subnet mask 255.255.255.0
Subnet mask	A subnet mask is a bit mask that is used to make decisions and assignments during routing. The standard subnet mask on home networks is 255.255.255.0.
Gateway	A gateway is a network device that allows all other network devices to access the internet. It can be, for example, the computer to which the DSL modem is connected or, most frequently, the router or access point on the network.

Parameter	Setting
Name server	The name server, also known as the DNS (Domain Name Server), is responsible for assigning a unique IP address to a web address or URL (e.g. www.google.de). When a domain is entered into a browser, the DNS searches for the corresponding IP address of the server and forwards the query on to it. The IP of the provider's DNS can be entered here. However, it is often sufficient to select the IP of the gateway. This then forwards the queries independently to the provider DNS.
DHCP	The DHCP server automatically assigns the IP address, subnet mask, gateway and name server to a network device. DHCPs are available in current routers. The DHCP service must be specially set and activated (see the relevant manual for more information). Note: When using fixed IP addresses together with a DHCP server, you should ensure that the fixed IP addresses are outside of the addresses assigned by DHCP to avoid problems occurring.
Port	A port is an interface that enables different programs to communicate. Certain ports are fixed (23: Telnet, 21: FTP), whilst others can be freely selected. Ports are relevant for various applications, e.g. for external access to the device via a browser.
MAC address	The MAC address (Media Access Control address or Ethernet ID) is the specific hardware address of the network adapter. It is used for the unique identification of the device on a computer network.

Network layout

The device must be physically connected to the network with a CAT5 cable; see Connections on page10.

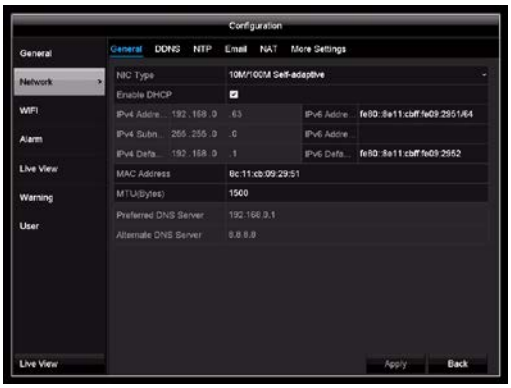
Note
Please follow the instructions and notes for the network devices.

Several switches/routers/access points can be connected to one another. Firewalls and other security software may have a negative effect on the network.

Warning
When using a router, the network clients, and therefore the recorder, are "connected" to the internet and vice versa.

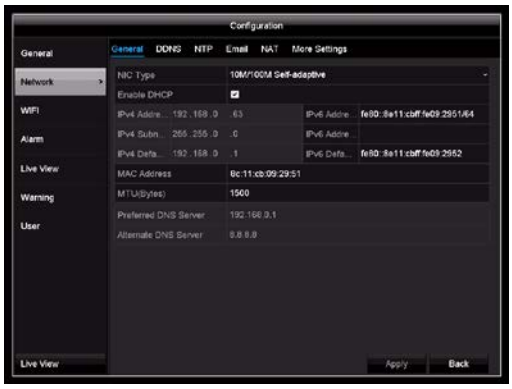
You should make sure that you take protective measures, such as using a firewall, changing your password and changing the port, to prevent unauthorised external access.

Network configuration



Tab	Setting
General	Settings for the local network and selecting the network mode.
DDNS	Server for Dynamic Domain Name System management used to update host names and DNS entries
NTP	Network Time Protocol Server for time synchronisation
Email	Specify email settings to be used when an email is sent to a specific address in the event of an alarm.
NAT	Universal Plug and Play Settings for the convenient control of network devices on an IP network.
More Settings	Used to configure the IP address of the PC where a notification should be displayed in the event of an alarm.

General tab

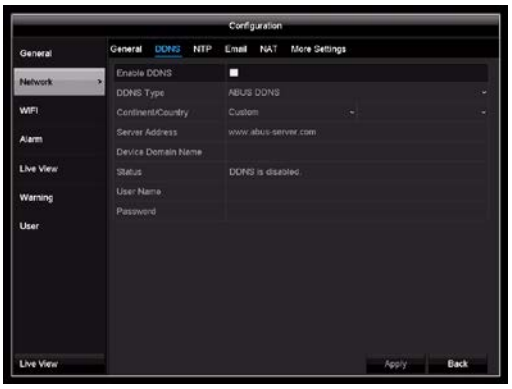


Parameter	Setting
NIC type	Set the transmission speed of the integrated network card here. Tip: 10M/100M/1000M Self-adaptive
DHCP	Tick the box if the IP addresses on the network are assigned dynamically via DHCP. DHCP enabled: subsequent entry fields are set to disabled because parameters are obtained via DHCP. Note: If the IP addresses are assigned manually, ensure that DCHP is not enabled.
IPv4 address	Address of the network device on the network when assigned manually
IPv4 subnet mask	Usually 255.255.255.0.
IPv4 default gateway	Gateway address for internet access
IPv6 Address 1	Local (link local) IPv6 address
IPv6 Address 2	Global (global unicast) IPv6 address
IPv6 standard gateway	IPv6 gateway address for internet access
MAC address	Hardware address of the integrated network card
MTU(Bytes)	Describes the maximum protocol packet size
Preferred DNS server	Address of the domain name server, usually the IP address of the gateway
Alternative DNS server	IP address of the alternative DNS server

Note

In certain modes some of these settings cannot be selected.

DDNS tab



1. To be able to use the ABUS DDNS function, you first need to set up an account at www.abus-server.com. Please read the FAQs on this topic on the website.
2. Tick the “Enable DDNS” box. Then select “DynDNS” as the DDNS type and enter the www.abus-server.com IP address in the “Server Address” field.
3. Apply the data by clicking on **Apply**. The IP address of your internet connection is now updated on the server every minute.

NTP tab

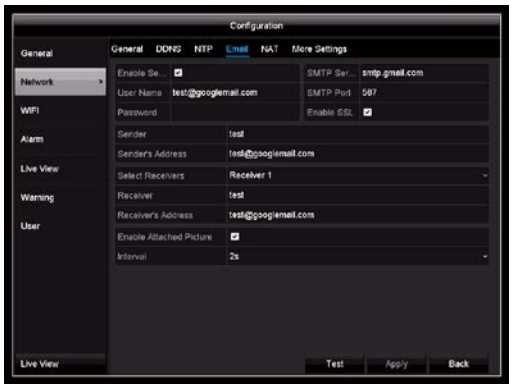
Note

The recorder can synchronise the time with an external server. Several server addresses are available on the internet for this purpose.

1. Tick the “Enable NTP” box and enter the interval after which synchronisation should be repeated. Enter the IP address of the NTP server and the NTP port.
2. Apply the data by clicking on **Apply**.

Email tab

In the event of an alarm, the device can send a message by email. Enter the email configuration here.



Parameter	Setting
Enable Server Authentication	Tick the box when logged onto the internet provider’s server
User name	Email account with the provider
Password	Password used to protect the email account
SMTP Server	SMTP server address of the provider
SMTP Port	Enter the SMTP port (default: 25)
Enable SSL	Tick the box to enable email encryption
Sender	Name of the sender
Sender’s Address	The email address linked to the email account
Select Receivers	Select three potential recipients for the email
Receiver	Enter the name of the recipient here
Email address	Enter the email address of the recipient
Enable Attached Picture	Tick the box if camera recordings should also be sent with the email as photo files
Interval	Select a trigger time of between two and five seconds. The pictures will only be sent if motion is detected during the time frame defined.

1. Enter the parameters of the email notification.
2. Then click on **Test** to send a test email.
3. If you have entered everything correctly and have received a confirmation email, click on **Apply**.

Note

The device will send an email to the specified recipients.

If no email is received, check the settings and correct them where necessary.

If necessary, check the junk mail settings for your email client.

Note

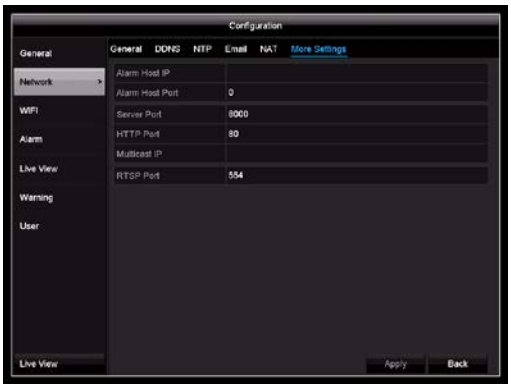
You can obtain the access data and settings for sending SMTP from your email provider. Some email providers only provide SSL encryption for sending emails. This recorder has been tested for SSL compatibility with the following providers: GMX, Web.de and Gmail.

NAT tab

Parameter	Setting
Enable UPnP	Tick the box to enable visibility on an IP network. When this function is activated, port forwarding is automatically entered in the router for all network ports (provided that UPnP is enabled in the router). If UPnP is enabled, the network ports configured by UPnP are transferred to the ABUS server (provided that ABUS DDNS is enabled).
Mapping type	For “manual” settings, the network ports can be manually defined using the “Edit” button. For “auto” settings, the recorder checks for free network ports on the router and defines the port numbers in a random pattern.

Confirm the settings by clicking on **Apply** and exit the menu by clicking on **Back**.

More Settings tab



Parameter	Setting
Alarm Host IP	Network address of the CMS station
Alarm Host port	Port for your CMS station
Server port	Port for data communication (default: 8000)
HTTP port	Port for the web server (default: 80)
Multicast IP address	You can enter the multicast IP here too in order to minimise traffic. The IP address must correspond to the one in the video surveillance software.
RTSP port	Enter the RTSP port (Default: 554).

Note

Server port 8000 and HTTP port 80 are the standard ports for remote clients and remote internet browser access.

Wi-Fi

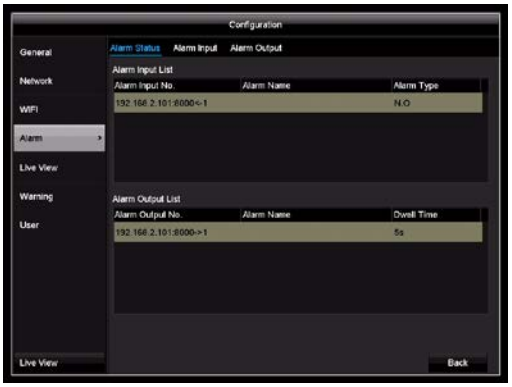
Parameter	Setting
SSID	Establish the name of the Wi-Fi network here.
Channel	Establish the channel for the Wi-Fi transmission here. (Recommended: self-adapting)
Security mode	Here you can select the security mode for the Wi-Fi network. (Recommended: WPA2-PSK)
Key	Establish the key with which you would like to connect to the Wi-Fi network of the recorder here.

Note

In case of disruptions in your Wi-Fi network, check which Wi-Fi channels in your area are the least busy and use this channel for your recorder.

Alarm

Alarm Status tab



Here you can see a list of all the alarm inputs and outputs and their current status.

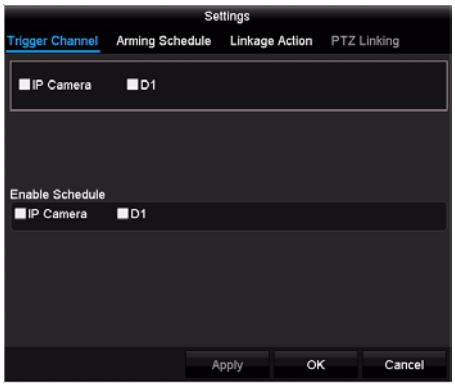
Alarm Input tab

Parameter	Setting
Alarm Input No.	Select the alarm input to adjust the settings. You can select the alarm input for an IP camera using the network address data.
Alarm Name	Enter a clear description, e.g. warehouse door contact
Type	N.O.: normally open circuit N.C.: normally closed circuit

- Activate the alarm input by ticking the “Settings” box.
- Define the response of the recorder in the event of an alarm under **“Settings”**.
- Click on **Copy** to apply these settings to other cameras.
- Confirm the settings by clicking on **Apply** and exit the menu by clicking on **Back**.

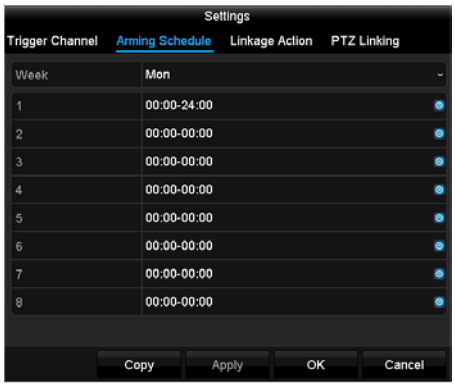
Settings

Trigger Channel tab



Tick the corresponding box to select which camera channel is triggered in the event of an alarm.

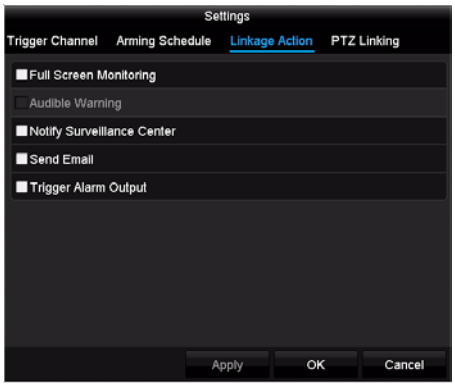
Arming Time Schedule tab



- Define the time at which the responses selected in the “Reaction” tab are activated when there is an alarm.
- Click on “Copy” to apply these settings to other days of the week or the entire week.

Linkage Action tab

Here you can configure the response of the recorder in the event of an alarm by ticking the corresponding box.



Parameter	Notifications
Full Screen Monitoring	The camera is displayed in full screen in live view.
Audible Warning	The device does not have an audible warning.
Notify Surveillance Centre	The CMS emits an audible warning tone.
Send Email	An email is sent to a specified email address. See page31
Trigger Alarm Output	The alarm output is triggered in the event of an alarm.

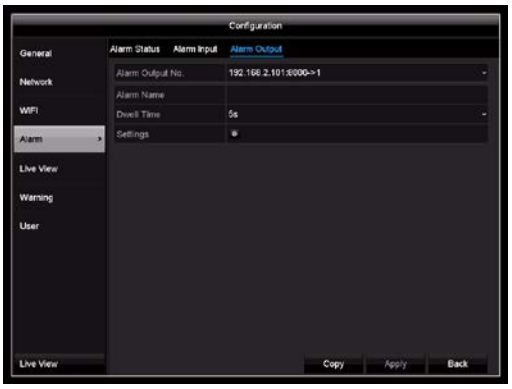
PTZ Linking tab

Here you can control specific PTZ presets, patrols or patterns for a taught-in camera.

Parameter	Notifications
PTZ	Select the camera to be controlled using a PTZ command in the event of an alarm.
Call preset	Select the preset number.
Start patrol	Select the patrol number
Call pattern	Select the pattern number

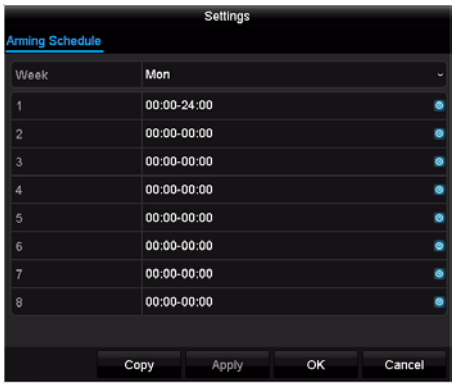
- Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

Alarm Output tab



Parameter	Setting
Alarm Output	Select the alarm output to adjust the settings. You can select the alarm output for a network camera using the network address data.
Alarm Name	Enter a clear description, e.g. warehouse door contact
Dwell Time	Select the dwell time for switching the alarm output.

- Activate the alarm output by ticking the “Settings” box.
- Define the time schedule for the recorder alarm output in the event of an alarm under **“Settings”**.



- Click on **Copy** to apply these settings to other cameras.
- Confirm the settings by clicking on **Apply** and exit the menu by clicking on **Back**.

Exceptions

Set the response of the recorder for warning messages and system events here. To do this, activate the “Enable Event Hint” setting.

You can trigger a warning for the following error types:

- HDD Full
- HDD Error
- Network Disconnected
- IP Conflicted
- Illegal Login
- Recording Error

Parameter	Notifications
Audible Warning	The device does not have an audible warning.
Notify Surveillance Centre	A notification is sent to the CMS software event log.
Send Email	An email is sent to a specified email address. See page31
Trigger Alarm Output	The selected alarm output is switched in the event of a fault.

User

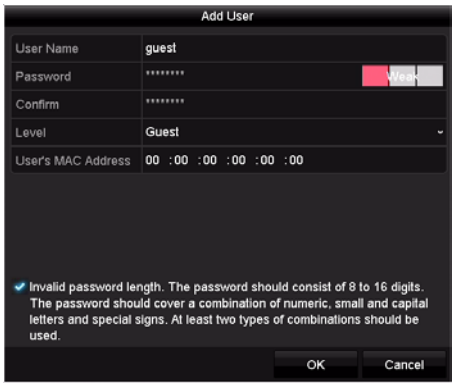
Warning

Note down the admin. The preset password is:

“**1 2 3 4 5**”.

In user management, you can add new users, delete users and amend existing settings.

1. To add a new user, select **Add**.



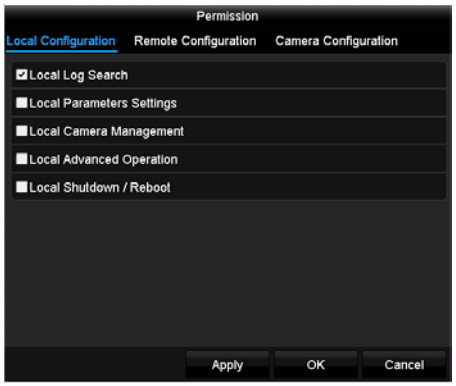
Parameter	Setting
User name	Unique identification
Password	Access code for the device, for the purpose of device management Note: change your passwords regularly, using a combination of letters and numbers etc. and note them down to be stored in a safe place.
Confirm	Enter the access code again for security
Level	IMPORTANT: More permissions can be set on the **Operator** level than on the **Guest** level.
User's MAC Address	MAC address of the network adapter of the PC used by the corresponding user **Note**: This limits access to the PC, for which the MAC address has been entered here.

2. Enter the name and password and confirm the password in the field below.
3. Select the level and enter the MAC address.
4. Confirm the settings by clicking on **OK**.

Warning
Follow the instructions below on assigning access rights.

Setting permissions

Control the access permission of the user by clicking on the "Permission" icon. Only the access data of users added manually can be changed:



Note
The user can adjust the settings locally, i.e. on the device, or change the parameters.
The user can access the device via the network connection.
Settings relating to permission to access individual cameras (via the network or locally) can be found in the Camera tab.

Parameter	Setting
Local Configuration	Local Log Search Local Parameter Settings Local Camera Management Advanced settings Local Shutdown/Reboot
Remote Configuration	**Camera Permission**: Remote Log Search Remote Parameters Settings Remote Camera Management Remote Video Output Control Two-way Audio Remote Alarm Control Advanced Settings Remote Reboot
Camera Configuration	**Camera Permission**: Remote Live View Local Manual Operation Remote Manual Operation Local Playback Remote Playback Local Video Export

Camera

Camera

Here you can see an overview of all cameras currently found on the network and a status display of cameras already integrated.

IP Camera tab

Parameter	Setting
Camera No.	Channel port starting with D1…D6.
Add/Delete	**X:** manually delete the camera **+**: quickly add the camera. To do this, the camera must be set to the standard user and port settings.
Status	**>**: camera is online, click to view a preview **!**: there is a camera fault or the camera is offline.
IP Camera Address	Displays the IP address.
Edit	Manually change the settings for the IP address, protocol, port and user name.
Update	Start the firmware update (storage medium with firmware is necessary)
Name	Displays the camera name (see OSD menu item).
Protocol	Displays the manufacturer device protocol.
Device Model	Displays the camera model number.

Click on **Refresh** to display the cameras on your network.

Click on **Update** to start the camera's firmware update. (storage medium with firmware is required)

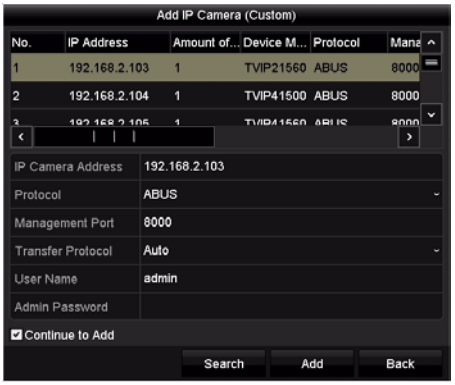
Click on **Delete** to delete the selected cameras.

Click on **Add All** to add all the cameras displayed. Please note that no more than six cameras can be added.

Select **Custom Adding** to manually add a camera.

Custom Adding

Here you can manually add IP cameras by entering the IP address and protocol and specifying the port and user ID.



Click on **Search** to refresh the device list.

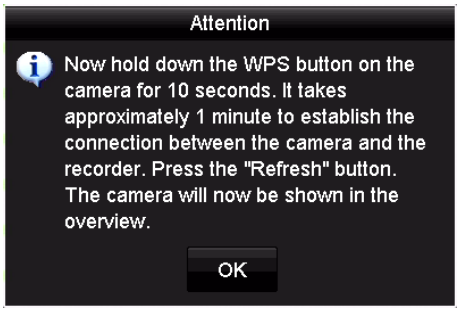
Select a camera from the list and add to/change the corresponding parameters when necessary:

Parameter	Setting
Address	IP address of the IP camera.
Protocol	Manufacturer communication protocol The recorder can only add cameras with the ABUS protocol
Port	The network camera's communication port (usually port 8000)
User name	User name for the admin account of the IP camera.
Admin Password	Password for the admin account of the IP camera.

WPS

WPS allows you to quickly and easily establish the Wi-Fi connection between your camera and the recorder.

1. Press 'WPS'
2. A pop-up window with more precise instructions will appear.



3. Hold down the WPS button on your camera for 10 seconds
4. Wait until the timer on the WPS button has expired.
5. Please wait up to two minutes until the camera has successfully established a connection with the recorder.
6. Click on Refresh and connect the camera manually or by using the Quick Add function.

Warning

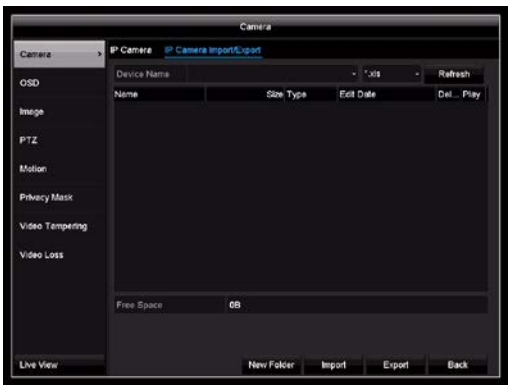
Only start a new WPS set-up for the next camera once the timer for the previous WPS set-up has expired.

Note

If the installation via WPS function was not properly functioning for a camera, the alternative ist to connect the camera with a network-cable with on of the three LAN-Ports of the recorder. Use then a PC to gain access of the Webinterface of the camera. There you can setup the WiFi-connection to the recorder manually in the Configuration -> advanced settings -> network -> WiFI menu.

IP Camera Import/Export tab

Here you can export and import all camera settings and configured camera lists from/to an external data storage device.



Click on **Import** to import a camera list from a data storage device.

Click on **Export** to export a list of all saved cameras to an external data storage device.

OSD

Select the camera channel to be processed under "Camera".

Parameter	Setting
Camera	Select the camera channel to be processed
Name	Allocation of camera name
Display Name	Activate/deactivate display of camera name in the live view
Display Date	Activate/deactivate display of date in the live view
Display Week	Display the calendar week for the playback search
Date Format	Select the display format for the date of the playback search
Time Format	Select the display format for the time of the playback search
Display Mode	Settings for displaying the camera name and date

Image

Select the camera channel to be processed under “Camera” and adjust the image settings based on the lighting conditions.

PTZ

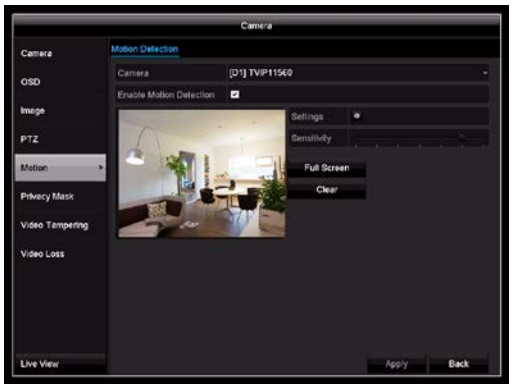
Parameter	Setting
Camera	Select the camera channel
Preset	Preset selection Set, delete or call up a preset number
Patrol	Patrol selection Set, delete or call up a tour number
Pattern	Pattern selection Start, stop or delete a pattern.
Linear scan	Remove left limit Remove right limit

Note

These settings are only relevant for cameras with external PTZ control.

Patrols, patterns and linear scans are not available with the TVIP21560 and TVIP41660 cameras.

Motion



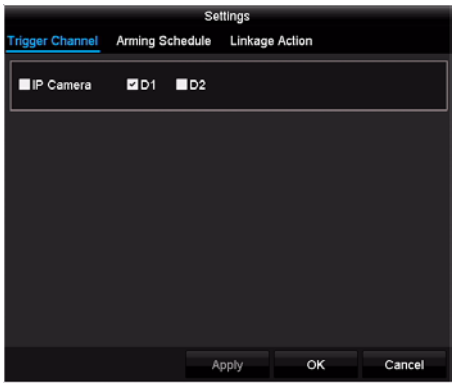
Motion detection is controlled solely using the motion information on the recorder, which has been detected by the camera. When the camera is connected to the system, the recorder automatically sets a standard setting for motion detection directly on the IP camera web interface. The settings therefore have to be manually adjusted on the camera’s web interface based on the current conditions.

To set up motion detection, proceed as follows:

1. Select the camera channel to be processed under “Camera”.
2. Tick the “Enable Motion Detection” box and define any other optional parameters under **“Settings”**.
3. On a PC, open the web interface for the camera you have selected and adjust the advanced settings for the motion mask, threshold and sensitivity.
4. Repeat the process for any additional cameras.
5. Click on **Apply** to save the settings.
6. If you wish to record based on motion detection, switch to the **“Record”** menu item and select the relevant cameras under **“Time Schedule”**. Here you can configure the time schedule using the **“Motion”** event in order to set up a motion-detection-based recording.
7. Click on **Apply** to save the settings.

Settings

Trigger Channel tab

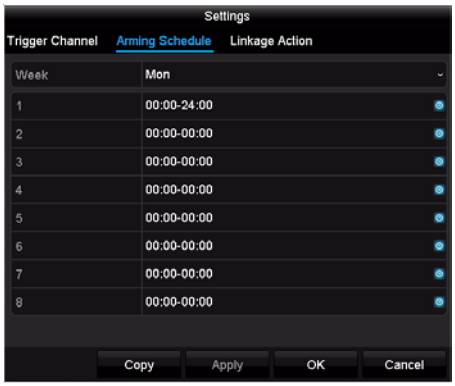


Select one or more camera channel(s) to react in the event of an alarm.

Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

Arming Time Schedule tab

Here you set the times at which the reactions set in the **Linkage Action** tab are triggered.



1. Select the day and enter the time schedule.

Note

Up to eight time slots, between 00:00 and 00:00, can be defined in each case, but the individual time slots must not overlap.

2. Under **Copy**, select whether or not the setting should be applied to every day of the week and the holiday settings.

Note

To record with the aid of motion detection, you must set up the time schedule under **Record**.

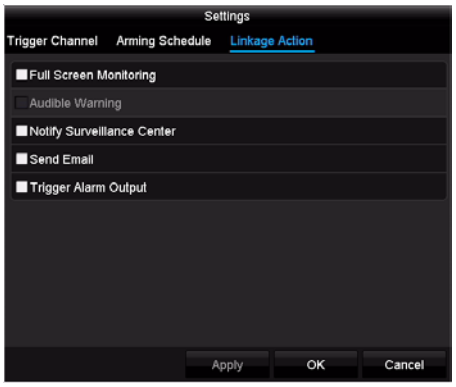
Note

The sensitivity settings for motion detection need to be adjusted on the camera web interface.

3. Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

Linkage Action tab

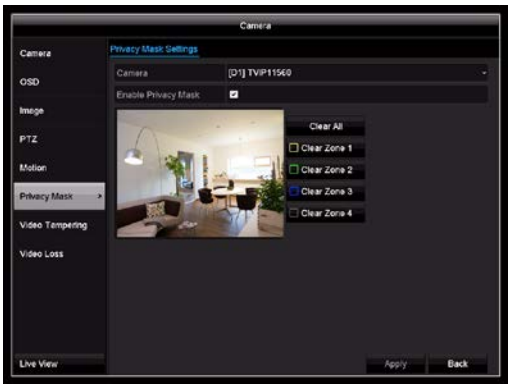
Here you can configure the response of the recorder in the event of an alarm by ticking the corresponding box.



Parameter	Notifications
Full Screen Monitoring	The camera is displayed in full screen in live view.
Audible Warning	The device does not have an audible warning.
Notify Surveillance Centre	The CMS sends out a warning message
Send Email	An email is sent to a specified email address. See page31
Trigger Alarm Output	The alarm output is triggered in the event of an alarm.

- Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

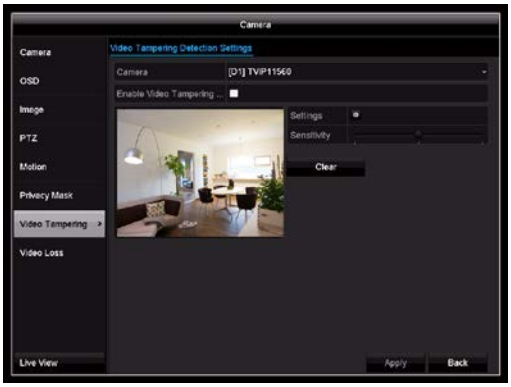
Private Zone



Select the camera channel to be processed under “Camera”.

Use the mouse to drag one of the four private zones over the image and press “apply”. The marked alarm zones will be shown as black areas in the camera images of the live view and recordings.

Tamper Surveillance



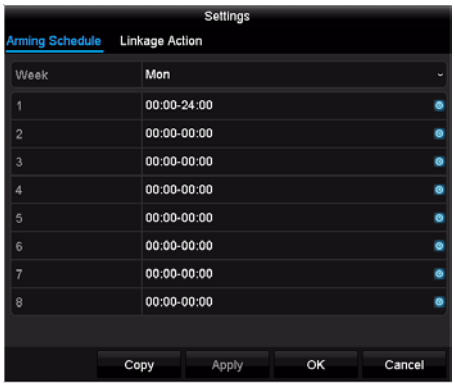
Select the camera channel to be processed under “Camera”.

Tamper surveillance alarms you if the camera is covered.

Tick the **Enable Tamper Surveillance** box and define any other optional parameters under **Settings**.

Settings

Arming Time Schedule tab



Here you set the times at which the reactions set in the **Linkage Action** tab are triggered.

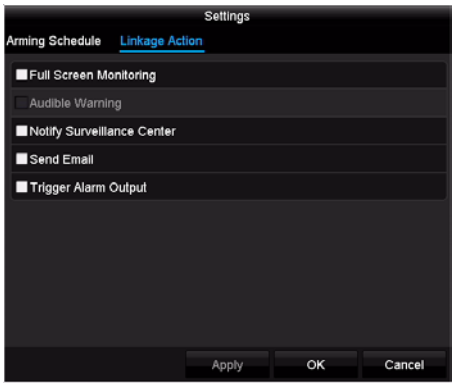
1. Select the day and enter the time schedule.

> **Note**
> Up to eight time slots, between 00:00 and 00:00, can be defined in each case, but the individual time slots must not overlap.

2. Under **Copy**, select whether or not the setting should be applied to every day of the week and the holiday settings.
3. Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

Linkage Action tab

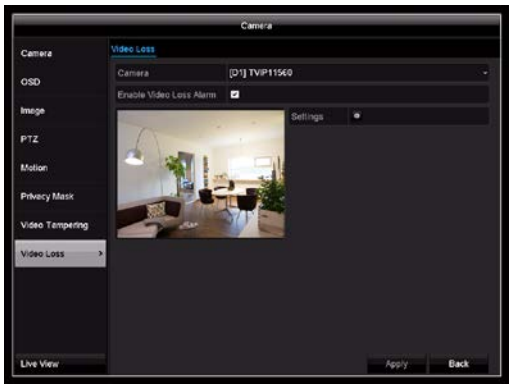
Here you can configure the response of the recorder during an event (e.g. motion detected) by ticking the corresponding box.



Parameter	Notifications
Full Screen Monitoring	The camera is displayed in full screen in live view.
Audible Warning	The device does not have an audible warning.
Notify Surveillance Centre	The CMS sends out a warning message.
Send Email	An email is sent to a specified email address. See page31
Trigger Alarm Output	The alarm output is triggered in the event of an alarm.

- Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

Video Loss

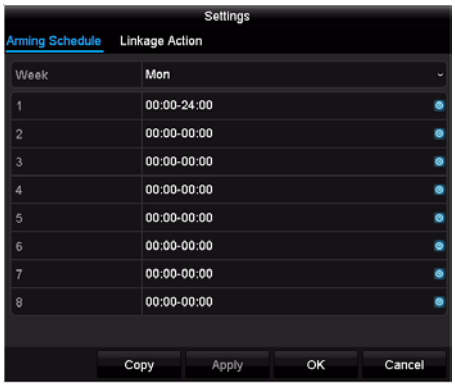


Select the camera channel to be processed under “Camera”.

Tick the **Enable Video Loss** box and define any other parameters under **Settings** as required.

Arming Time Schedule tab

Here you set the times at which the reactions set in the **Linkage Action** tab are triggered.



4. Select the day and enter the time schedule.

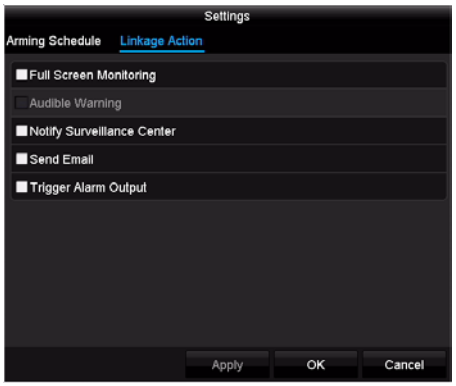
Note

Up to eight time slots, between 00:00 and 00:00, can be defined in each case, but the individual time slots must not overlap.

5. Under **Copy**, select whether or not the setting should be applied to every day of the week and the holiday settings.
6. Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

Linkage Action tab

Here you can configure the response of the recorder during an event (e.g. motion detected) by ticking the corresponding box.



Parameter	Notifications
Full Screen Monitoring	The camera is displayed in full screen in live view.
Audible Warning	The device does not have an audible warning.
Notify Surveillance Centre	The CMS sends out a warning message.
Send Email	An email is sent to a specified email address. See page31
Trigger Alarm Output	The alarm output is triggered in the event of an alarm.

- Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

Recording

Time Schedule

Open the main menu and click on Record. There are two types of configuration and data recording available:

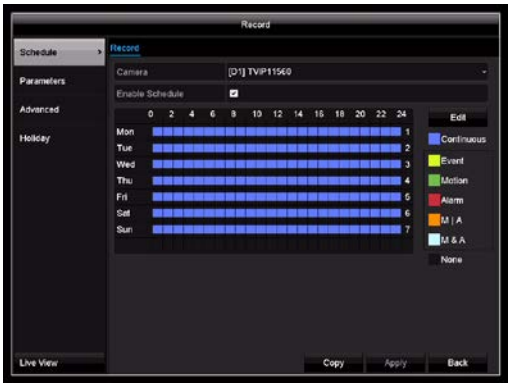
Recording	Configuration of video stream recording from connected IP cameras. Continuous data streams are saved on the recorder.

Record tab

The time schedule is used to specify the recording times and triggers (recording type) for the cameras.

Note

As there is no difference between the settings for the Record and Capture tabs, they are only listed once.



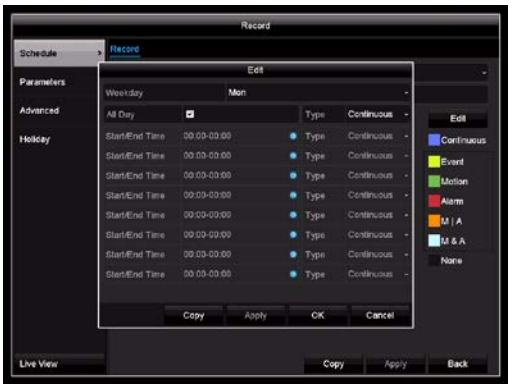
On the on-screen display, the hours for each day are listed from left to right, and the days are listed from top to bottom. On the right of the display, there is a colour key, i.e. the time frames for recording are

displayed in the time schedule in a different colour depending on the “trigger” (recording type) in question.

Coloured icon	Key
Blue	Duration: period in hours
Yellow	Event-controlled (e.g. PIR sensor)
Green	Motion detection
Red	Alarm
Orange	Motion or alarm
Light blue	Motion and alarm
Grey	No selection

- Select the camera and tick the **Arm Time Schedule** box.
- Click on a **trigger** and use your mouse to highlight the time period within the time schedule. Here you can drag your mouse over the required time period

Alternatively, click on **Edit** to configure the type and duration of the time schedule down to the minute.



1. In the drop-down menu for ‘time schedule”, select the day to be set.
2. Activate/deactivate “All Day”. If “All Day” is activated, you cannot enter specific times as the setting now applies to the whole day.
3. If you wish to enter specific time settings, deactivate “All Day”.

Application example

If you want recording to run from 11:00 to 07:00, you need to set up two time zones:

1. 11:00–24:00
2. 00:00–07:00

4. Specify the recording type in the drop-down menu for “Type”:
   - Duration
   - Motion
   - Alarm
   - Motion or alarm
   - Motion and alarm

Note

Under “Duration”, you define the time period for recording.

The other triggers, such as motion detection, only trigger recording when the specific trigger has occurred.

5. If you are entering time-dependent settings, you can define up to eight time slots, between 00:00 and 00:00 in each case, but the individual time slots must not overlap.
6. Click on **Copy** to apply these settings to other days or the entire week.

Finalise your settings on the record screen by clicking on **Apply** and then **OK**.

Parameter

"Parameters" is where the quality settings for the individual video streams are set up on the recorder.

Note

If it is not possible to change the advanced settings for resolution and bit-rate, this means that the current recorder firmware does not support this function.

There are three types of configuration available:

Recording	Quality settings for continuous and event-based recording
Substream	Quality settings for the substream, which is used for the live image display.

Record tab

Parameter	Setting
Camera	Camera to be set
Encoding Parameters	Stream to be set
Stream Type	Predefined video stream
Resolution	Resolution of the camera
Bit Rate	Select a variable or constant bitrate
Video Quality	There are various quality levels: +++: medium quality ++++++: high quality
Frame rate	Settings for the stream frame rate
Max. Bitrate Mode	General: Pre-defined bit rates Custom (32–3072)
Max. Bitrate(Kbps)	Settings for the maximum bitrate
Max. Bitrate Range Recommended	Recommended bit rate depending on the set resolution, frame rate etc.

More settings

Pre-record	Recording period before an alarm (in seconds)
Post-record	Recording period after an alarm (in seconds)
Expired Time (days)	Setting for the maximum retention time for recorded files
Record Audio	Armed recording with audio data
Video Stream	Stream type allocated for recording

Confirm the settings by clicking on **Apply** and exit the menu by clicking on **Back**.

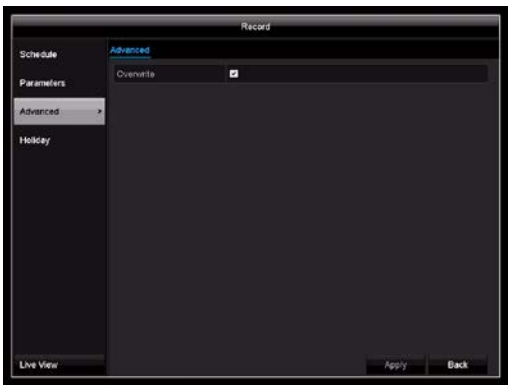
Substream tab

The following parameters can be set:

Parameter	Setting
Camera	Camera to be set
Stream Type	Predefined video stream
Resolution	Auto, 4CIF(704x576), CIF(352x288), QCIF(176x144)
Bitrate Type	Select a variable or constant bitrate
Video Quality	There are various quality levels: +++: medium quality ++++++: high quality
Frame rate	Settings for the stream frame rate
Max. Bitrate Mode	General: Pre-defined bit rates Custom (32–3072)
Max. Bitrate(Kbps)	Display of the maximum bitrate
Max. Bitrate Range Recommended	192~320 (Kbps)

Confirm the settings by clicking on **Apply** and exit the menu by clicking on **Back**.

Advanced settings



Overwrite	Specify whether older recordings should be overwritten when the hard disk drive is full.

Holiday

In this submenu, there are 32 different recording settings for holidays or bank holidays.

Name	Manually enter the name of the holiday or bank holiday
Armed	Enable or disable the set holiday
Model	By Date/By Week/By Month
Start Time	Select the start date/start time
End Time	Select the end date/end time

Click on the “Edit” icon to apply these settings.

Confirm your settings by clicking on **Apply** and then **OK**.

HDD

Hard disk drives

Note

The device can manage one 2.5" S-ATA hard disk drive.

The installed hard disk drives have to be initialised before the device can be used for recording. It is only then that the device will recognise the hard disk drive.

Warning

All data will be deleted from the hard disk drive during initialisation.

Ensure data is backed up beforehand.

Installing the hard disk drive

Warning

Switch the device off and disconnect it from the mains electricity.

Ensure proper grounding to avoid static discharge.

1. To install a hard disk drive, see separate quickstart guide.
2. Open the lower flap on the recorder
3. Push the hard disk drive into the intended slot
4. Check that the hard disk drive is mounted correctly to the recorder's plug connections
5. Close the housing

General

HDD Information	Description
No.	Shows the internal connection number
Capacity	Hard disk drive capacity (in GB)
Status	Shows the current status of the hard disk drives: Not initialised Normal Error Standby
Attributes	Read-only: write protection R/W: read and write
Type	Local: device hard disk drive
Free Space	Shows the approximate amount of free memory for recordings
Group	Group ID
Edit	
Delete	Remove the hard disk drive.

Initialising the hard disk drive

1. Select the hard disk drive by ticking the box.
2. Click on **Init.** to start the process.
3. Click on **OK** to acknowledge the security prompt.
4. The status bar will show the progress of the initialisation.
5. Once the process has finished, the hard disk drive will appear.

Add NetHDD

Additional data storage devices can be added to enable storage across the network.

Warning
When using NetHDDs, ensure that your network is of a sufficient size.

Note
The playback of recorded data may be slower if you use NetHDDs than if you are using the internal hard disk drives.

Click on **Add** to add a NetHDD.

NetHDD	Choose from eight NetHDDs.
Type	**NAS:** For this setting, your network storage must support the NFS file system.
IP address	Enter the network storage IP address.
NetHDD Directory	Enter the storage path or iSCSI target.

Click on **Search** to identify the network storage and then click on **OK** to add the NetHDD.

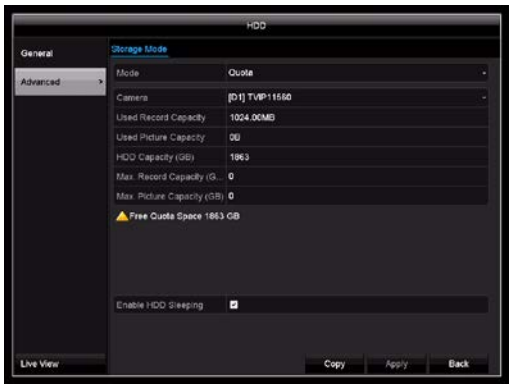
The NetHDD must be initialised before use.

Advanced settings

Here you can define the settings for the storage mode.

Quota tab

In this mode, video data is divided between the total number of data storage devices connected and written onto them.



Camera	Select the camera channel to be processed
Used Video Capacity	Video storage space currently in use on the linked data storage devices.
Used Picture Capacity	Picture storage space currently in use on the linked data storage devices.
HDD Capacity (GB)	Total available hard disk drive capacity (in GB)
Max. Record Capacity (GB)	Specify the maximum video recording size on the linked data storage devices for each camera.
Max. Picture Capacity (GB)	Specify the maximum picture recording size on the linked data storage devices for each camera.
Enable HDD Sleeping	When this function is activated, idle hard disk drives go into standby mode.

1. Use **Copy** to specify if the setting is to be applied to all cameras.
2. Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**
3. The group of hard disk drives will be saved.
4. Click on **Apply** and confirm the reboot in the next window by clicking on **OK**.

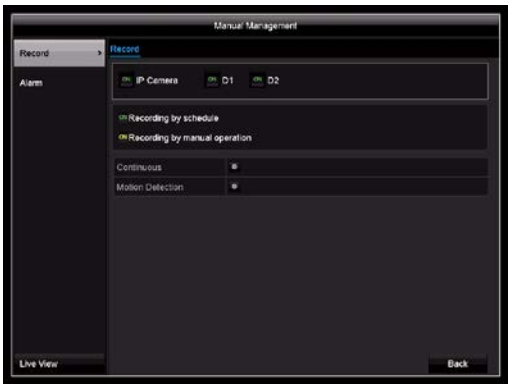
Panic recording

Recording

Press the REC button or navigate to **Manual Management** in the main menu to start manual picture/video recording. The settings are identical for snapshots and therefore will only be described once.

If a recording is started manually, it also has to be stopped manually. All manual recordings will be deactivated when the recorder is rebooted.

Click on the “Record” submenu.



Select the settings for all cameras. Click on “Off” or “On” to change the settings.

“On (green)” → “Off (red)”

Manually stop recording

“Off (red)” → “On (yellow)”

Manual continuous recording

“On (yellow)” → “Off (red)”

Manual continuous recording is stopped and if a time schedule has been configured for the camera, it will be activated automatically (green).

Parameter	Description
Duration	Click on the icon to activate continuous recording for all channels for the whole day. Click on “Yes” to confirm your selection.
Motion detection	Click on the icon to activate motion detection for all channels for the whole day. Click on “Yes” to confirm your selection.

Alarm

Here you can select the alarm output which should be switched in the event of manual management.

You can switch several alarm outputs in the event of a manual response.

Select **Trigger** to activate the selected alarm output.

Click on **Trigger All** to activate all of the alarm outputs.

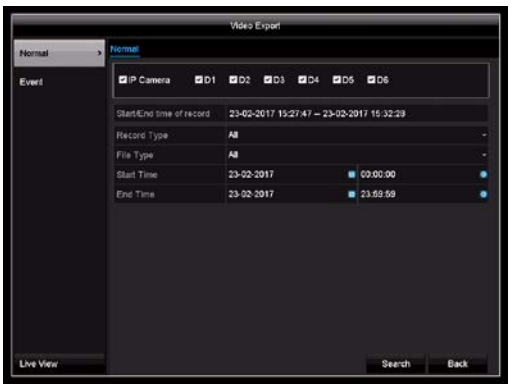
Click on **Clear All** to remove the settings.

Data Export

In the menu, go to **Video Export** to export recorded video data and images from the recorder. The following options are available:

Duration	Export video data which was recorded with continuous record.
Event	Export video data which was recorded with event record.

Duration



Note

The export function is used to store important recordings on connected external media, such as:

- USB media
- USB hard disk drives
- DVD writers

1. Enter the parameters.
2. Click on **Search** to start the search and the events screen will appear.

- The file size of each of the recordings and the total size of all recordings found are displayed.

3. Click on  to view the corresponding recording.
4. Click on  to lock and unlock a file. Locked files can no longer be overwritten by the system.
5. Click on **Export** to go to the Export screen.
6. Select the connected medium to be used for storage from the drop-down menu.
7. If the medium is not displayed in the list, click on **Refresh**.

- If the medium is still not displayed in the list, disconnect it from the device and then reconnect it. See also the manufacturer's specifications.

8. Click on **Export** to start exporting. The progress of the storage process will then be displayed.

Note

Once the storage process is completed, you can select the data on the medium and play it back on the player (which has to be exported separately). This way you can check that the export was successful.

Note

Pre-play recordings can only be viewed if recording was started before the alarm.

Note

Because the recorder only has a USB port, either use a USB hub or start the export via the recorder's web interface.

Event

Note

The "Duration" and "Picture" sub-menus are similar and will therefore not be described separately.

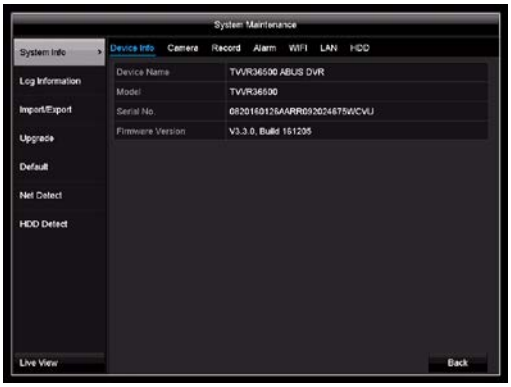
Define the period of the recordings to be searched for using the "Start Time" and "End Time" selection fields. Select the camera by ticking or unticking the box and then click on **Search**.

For both types of event, the following window will appear after clicking on the **Search** button:

Select the files to be exported by ticking or unticking the box. Under "Pre-play" and "Post-play", you can set the time before and after the alarm, which allows you to define the length of the video you export.

Click on **Details** to view the selected video. See **DURATION** for more information about the **Details** window. See page49

Maintenance



Note

This menu is used for device maintenance and should only be used by experienced users.

Menu	Setting
System Info	Device information (Serial No., Firmware Status etc.)
Log Search	In Log Information (=log file), you can search for recordings or information (S.M.A.R.T. hard disk drive status) by certain criteria, such as alarm, exception, operation or information.
Import/Export	Import and export settings
Update	Performs a firmware upgrade
Default	Resets the system
Network	Displays the transmission and reception rate of the recorder
HDD Detect	Checks the hard disk drive for errors

System Info

Note

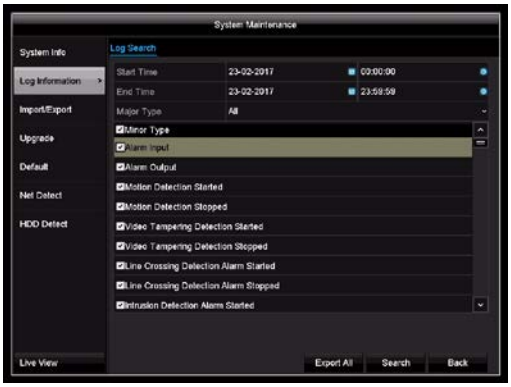
The information menu shows the technical data for the device and information on the various settings of the cameras, recording, alarm, network and HDD.

This can be useful for support queries, for example.

Note

In the Wi-Fi tab you can view the devices which are connected to the Access Point of the recorder via Wi-Fi, as well as their connection bandwidth.

Log Search



Note

You can search for “events” according to the following main types/events/parameters:

- All
- Alarm
- Warning
- Operation
- Information

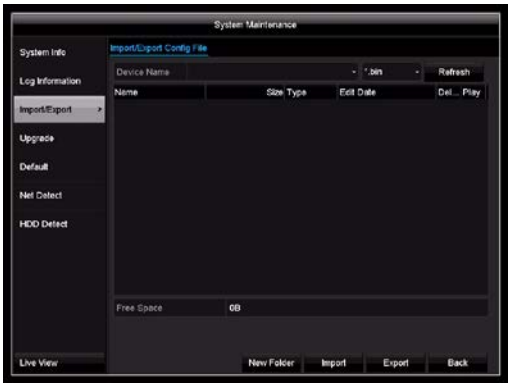
Filter1	Filter2
All	-
Alarm	• All • Motion detection • Start/stop • Start/Stop Tamper Surveillance
Warning	• All • Video Signal Loss • Illegal Login • HDD Full • HDD Error • IP Conflicted • Network Disconnected • Exception Recording • Video input/output signals not equal • Recording Buffer
Operation	• *All* • *Power On* • *Local: Unscheduled Shutdown* • *Local: Shutdown, Reboot, Login, Logout* • *Local: Change Settings* • *Local: Update* • *Local: Start Recording*

Information	• All • HDD Information • HDD S.M.A.R.T. • Start Recording • Stop Recording • Delete Expired Record

1. Select the event you wish to search for in the log and then select a sub-parameter.
2. Enter the date and time under Start Time and End Time, then click on **Search**.
3. The results will then be displayed:

- You can change the page using the navigation bar:
- Click on the “Details” icon for more information.
- Click on the “Play” icon to start the recording for the event as required.
- Click on **Export** to save the log file on a USB medium.

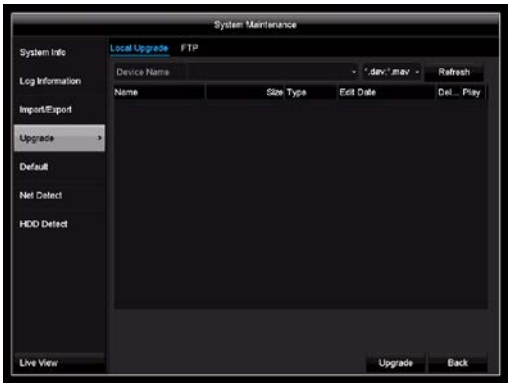
Import/Export



Note

The configuration data contains all of the settings for the device that have been adjusted since it was started up. Because the recorder only has a USB port, either use a USB hub or start the import/export via the recorder’s web interface.

Update



Note

A device can be upgraded from a USB medium or via the network

via FTP.

- Copy the upgrade file with the *.mav file extension onto the main directory of a USB stick.
- Insert the USB stick into one of the device’s USB ports.
- Because the recorder only has a USB port, we recommend that you always perform an update via the web interface.

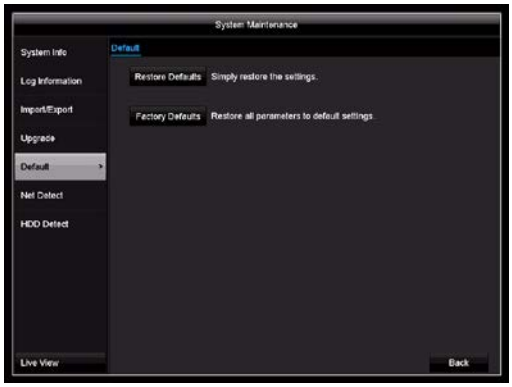
1. Select the USB port, clicking on Refresh, if necessary.
2. Select the update file and click on Update.
3. Wait until the device reboots.
4. If necessary, check the firmware status under Information in the Maintenance menu. Performing a system reset

Note

Updates via FTP are carried out in the same way as detailed above.

- The PC must be on the same local network.
- Set up a PC as an FTP server.
- Enter the IP address of the FTP server.

Default settings



Note

This process involves the device being reset to the default factory settings.

Warning

All settings adjusted since the device was started up will be deleted (cameras, recording settings, PTZ, alarms etc.)

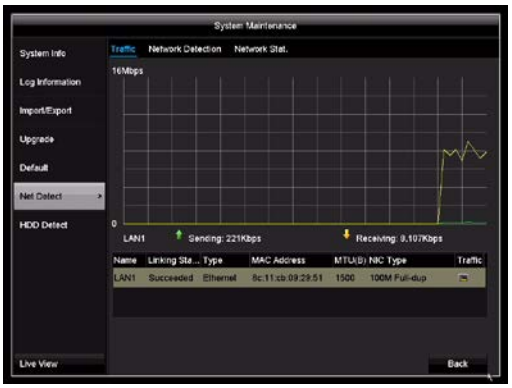
Avoid loss of data by saving the settings beforehand. It can be re-imported once the system has been reset.

Network

Information regarding the network traffic and network interfaces is shown here.

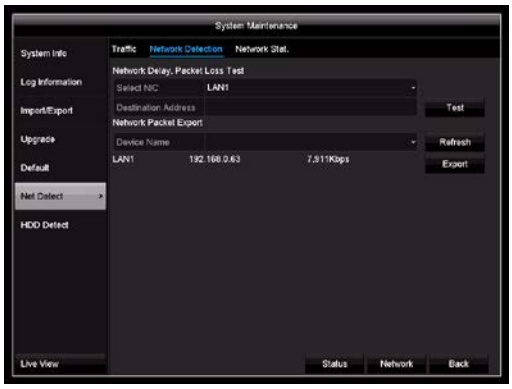
Traffic tab

The network graphs can be used to measure continuous traffic on the recorder. The amount of data sent and received is shown in graph form.
Depending on the network settings, the status and information for one or two network connections is shown in the field underneath the graph.



Sending	Displays the amount of data (in Mbit/s) currently being sent out by the recorder. The value increases as more users access video streams from the recorder over the network (web, app, PC application and network storage). Once the recorder limit value has been reached or exceeded, it will no longer be possible for all requested streams to be displayed.
Receiving	Displays the amount of data (in Mbit/s) currently being received by the recorder. The value increases as more IP cameras are added and as the bitrate of the camera stream is set to be higher. Once the recorder limit value has been reached or exceeded, the recorder will switch off camera channels.

Network Detection tab



Under “Network Test”, you can check the connection to another device, such as a computer (‘pinging’). Enter the network address of the device to be checked (e.g. 192.168.0.25) and click on **Test**.

Information on two parameters will appear:

Parameter	Setting
Average delay	The time the pinged device needs to reply
Packet loss rate:	Displays the percentage of packets that were not transmitted

Note
If the packet loss rate is high, we recommend that the “Network Test” is repeated.

Note
If the packet loss rate is still high, you should check that the network cables are correct and not damaged.
The higher the packet loss rate, the poorer the connection between the pinged device and the recorder.

Under “Network Packet Export”, you can export the settings of the individual connections or, depending on the setting,

the connection.

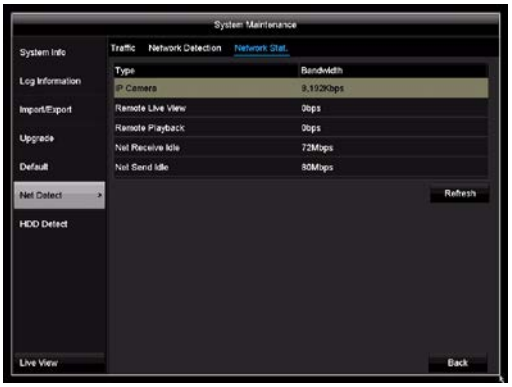
1. For “Device Name”, select a storage medium to save the settings to.
2. Click on **Export**.
3. After the progress display finishes and initialisation is successful, an information window will appear. Close it by clicking on **OK**.

- Click on Status to display the status of the Ethernet connections (connected/not connected).
- Click on **Network** to change your network settings.

Network Stat. tab

Note

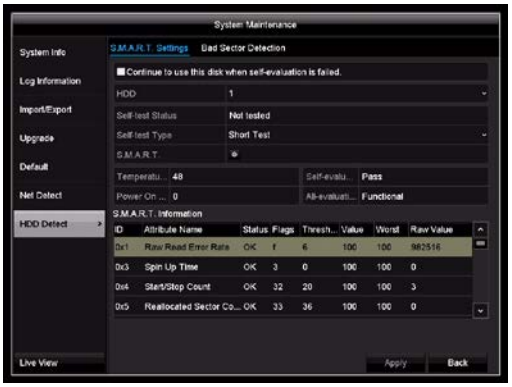
This view allows for the analysis of network and performance problems with the recorder.



The bandwidth used by the device is displayed under this tab.

You can refresh the data by clicking on **Refresh**.

HDD Detect



Click on the “S.M.A.R.T.” submenu.

This submenu gives you the option to check your hard disk drive for errors.

Parameter	Setting
HDD	Selection of the hard disk drive to be processed
Self-test Status	Shows the status of the current self-test
Self-test Type	Select the type of self-test Short Test/Expanded Test/Conveyance Test
S.M.A.R.T	Click on the icon to start the self-test
Temperature (°C)	Displays the hard disk drive temperature
Power On (days)	Displays the operating days of the hard disk drive
Self-evaluation	Shows the status of the self-evaluation
Complete evaluation	Shows the status of the evaluation

Confirm the settings by clicking on **Apply** and exit the menu by clicking on **OK.**

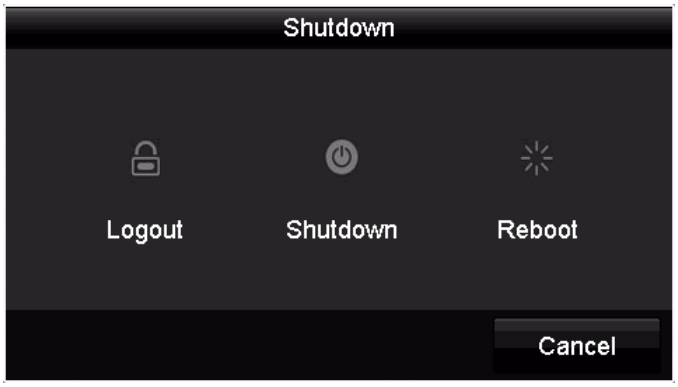
Checking the hard disk drive status

You can check the status of each hard disk drive in the “System Maintenance” menu. The S.M.A.R.T (Self-Monitoring, Analysis and Reporting Technology) information is stored in the log data.

- Open the log file and search by information/S.M.A.R.T. Hard disk drive. Setting up the hard disk drive alarms
- You can specify which alarms will inform you of hard disk drive errors.

To do this, open “Exception” in the “Settings” menu.

Shutdown



Note

- Select **Lock** to lock the operating menu.
- Select **Shutdown** to switch the device off.
- Select **Reboot** to reboot the system (switch off and back on).

Display

Note

See description on page10.

Settings: Recording

Note

See description on page43.

Settings: Network

Note

See description on page29.

Fault rectification

Before contacting the Service department, read the following information to determine the possible cause of any fault.

Fault	Cause	Solution
No power	Power cable not connected	Connect the power cable properly to the socket
	No power supplied from socket	If necessary, use another device at the socket
No picture	The screen is not set to receive	Set correct video input mode, until an image is received from the recorder
	Video cable is not connected properly	Connect the video cable properly
	The connected monitor is switched off	Switch on monitor
No sound	The audio for the camera stream is not enabled	Change the stream type from “Video” to “Video & Audio” in the parameter settings.
Hard disk drive not functioning	Hard disk drive has not been inserted properly.	Check connection
	Hard disk drive faulty or incompatible with the system	Replace the hard disk drive with a recommended hard disk drive
USB connection not functioning	Device is not supported	Connect correct USB medium, USB 2.0
	USB Hub was used	Connect USB medium directly
Network access not possible	Network cable connection loose	Insert network cable.
	Network settings (DCHP, IP address etc.) incorrect	Check and, if necessary, correct the network configuration; see page30.
Recording is not possible	No HDD, or HDD not initialised	Install and initialise hard disk drive
Sudden switch-off	The internal temperature of the device is too high	Clean the device and/or remove any objects impeding the ventilation

- .

Technical data

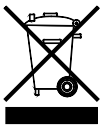
Subject to technical changes and correction without notice.

ABUS video recorder	TVVR36500
Video compression	H.264, MPEG-4
Camera inputs	6 x IP
Monitor outputs	1 x HDMI
Resolution (Live view)	HDMI 1920*1080/60Hz, 1600*1200/60Hz, 1280*1024/60Hz, 720P: 1280*720/60Hz, 1024*768/60Hz
Resolution @ frame rate per Camera (recording)	6M/5MP /3MP /1080P /UXGA /720P /VGA /4CIF /DCIF /2CIF /CIF /QCIF @ 25 fps
Total frame rate	125 fps
Post-alarm memory	0–30 sec./5–900 sec.
Storage medium	1 x 2.5" S-ATA HDD
Storage	Web
Views	1 / 4 / 5+1
Recording modes	Manual, time schedule, motion detection, alarm
Search modes	By event, date and time, S.M.A.R.T.
User levels	2 (max. 31 users)
Network access	1 x RJ45 Router 10/100 Mbps, 3 RJ45 Ethernet 10/100 Mbps
Simultaneous network access	128 camera connections
Network functions	Live view, playback, data export
DDNS	√
NTP	√
Alarming	OSD Signal, Email, CMS
Control	USB mouse
OSD languages	English, German, French, Dutch, Danish, Italian, Polish, Spanish, Swedish
Power supply	12 VDC, 5 A, 50~60 Hz
Power consumption	<12W
Operating temperature	0°C ~ + 40°C
Dimensions (WxHxD)	88 x 165 x 90 mm
Weight	570 g
Certifications	CE, REACH, Law Sargozy, C-Tick

Disposal

Notes on EC directives for waste electrical and electronic equipment

For the protection of the environment, at the end of its useful lifespan, the device may not be disposed of in household waste. Disposal can be carried out at suitable national collection points. Obey local regulations when disposing of material.



Dispose of the device in accordance with EU Directive 2012/19/EU - WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the municipal authority responsible for disposal. Information on collection points for waste equipment can be obtained from the local or district authorities, local waste disposal companies or the dealer.

Notes on RoHS EU Directive

The device complies with the RoHS directive.

Compliance with the RoHS directive means that the product or component contains none of the following substances in higher concentrations than the highest concentrations in homogeneous materials, unless the substance is part of an application that is excluded from the RoHS Directive:

a) 0.1 % lead (by weight)

b) Mercury

c) Hexavalent chromium

d) Polybrominated biphenyl (PBB) and polybrominated diphenyl ether

e) 0.01 % cadmium (by weight)

Glossary

Technical terms used

16:9

Cinema orientated aspect ratio for wide-screen displays.

Screen diagonal

Size information for displays: Distance between the bottom left-hand corner to the top right-hand corner – in inches or centimetres.

Browser

Program for viewing websites on the World Wide Web.

CIF

'Common Intermediate Format'.

Originally intended for conversion of PAL to NTSC standard. CIF equates to a video resolution of 352 x 288 pixels, 2 CIF 704 x 288 pixels, 4 CIF 704 x 576 pixels.

DDNS

'Dynamic Domain Name System Entry'

A network service that keeps and updates the IP addresses of its clients in a database.

DHCP

'Dynamic Host Configuration Protocol'

A network protocol that enables the automatic incorporation of devices (clients) into existing networks. As such, DHCP servers (such as internet routers) allocate the IP address, the network mask, the gateway, the DNS server and, if necessary WINS server automatically. The client only has to be set to obtain the IP address automatically.

Domain

Domains (name space) that identify Internet pages (e.g. www.abus-sc.de).

Dual stream

Dual stream designates a video transmission method. A high resolution recording is made along with a low resolution transmission, e.g. via the network.

DVR

Digital Video Recorder; a device for recording various video and audio sources (analogue, digital). The data is compressed for recording and stored on hard disk drives.

CVBS

"Colour, Video, Blanking and Synchronisation" signal. The most simple variant of video signals, also called "Composite Signal". Picture Quality is comparatively low.

H.264

(MPEG-4 AVC); standard for high-efficiency compression of video signals. Used in such things as Blu-ray discs or video conferencing systems.

HDD

'Hard Disk Drive', hard disk (magnetic disk store)

Digital data store in computers or NVRs.

GIGABYTE

Unit of storage capacity for storage media (HDD, USB, SD/MMC cards).

HDVR

Hybrid DVR, DVR for recording from analogue cameras and network cameras.

http

'Hypertext Transfer Protocol';

A process for data transfer across networks. Mainly used for the presentation of websites in a browser.

INTERLACED

Line skip procedure

IP address

An address on a computer network based in the internet protocol (IP), this enables various devices to be addressable on the network and individually accessible.

JPEG

Low-loss compression process for photos. Most digital cameras store their pictures in JPEG format

MPEG

Abbreviation for Moving Picture Experts Group. This is used as an international standard for the compression of moving pictures. On some DVDs the audio signals are compressed and recorded in this format.

NTP

Network Time Protocol

A process for time synchronisation across networks. Also SNTP (Simple Network Time Protocol) that represents a simpler form.

NTSC

Colour television standard in the USA. The process differs in certain details from the European PAL system: An NTSC full screen consists of 480 visible lines and a total of 525 lines. Sixty half images are displayed per second. Compared with PAL, the system is more susceptible to colour distortions.

PAL

"Phase Alternating Line"; European colour TV system. It uses 576 visible picture lines, with the lines used for management signals, a full screen consists of 625 lines. Fifty half images are displayed per second. Its colour signal phase position changes from picture line to picture line.

PANEL

Interior working of a flat display (the terms LCD or plasma panel are used).

PC

A PC can be used as a remote access point with the software supplied or with a browser.

Pixel

"Picture element". Image point, image element refers to the smallest unit of a digital image transmission or display.

PIP

"Picture in Picture". Abbreviation for the "picture-in-picture" function, where two signal sources can be seen on the screen at the same time. When this occurs, the second signal source is placed over the first one.

PPPoE

'PPP over Ethernet' (Point-to-Point Protocol)

Network transmission process for establishing connection via dial-up lines that are used with ADSL connections, for example.

PROGRESSIVE

Scanning by line or image display, as opposed to line skip or "Interlaced".

RTSP

'Real-Time Streaming Protocol'

Network protocol for the control of continuous transmission of streams or software via IP-based networks.

SNMP

'Simple Network Management Protocol'

A network protocol that regulates the communication between the monitored devices and the monitoring station. Therefore, with appropriate software, the device status can be monitored.

USB

'Universal Serial Bus'

Serial bus link for the connection of, among other things, storage media in operation. Maximum usable data rate for USB 2.0: approx. 320 Mbit/s (approx. 40 MB/s).

VGA

"Video Graphics Array" For PCs, the usual interface for analogue video signals – usually involves RGB signals.

INCH

Measurement of screen diagonals. An inch is equal to 2.54 centimetres. The main typical sizes of 16:9 displays: 26 inch (66 cm), 32 inch (81 cm), 37 inch (94 cm), 42 inch (106 cm), 50 inch (127 cm), 65 inch (165 cm).

About the internal hard disk drive

The internal hard disk drive (HDD) is very sensitive. Operate the device in accordance with the following instructions to avoid hard disk drive faults. Important recordings should be backed up on external media to avoid accidental data losses.

Note

- Do not move the device during operation.
- Dampness inside the device can condense and cause the hard disk drive to malfunction.
- When the device is switched on, never remove the mains connector plug from the socket or interrupt the power supply by tripping the safety switch.
- Do not move the device immediately after switching it off. To move the device carry out the following steps.
  1. Wait at least two minutes after the OFF notification (device display).
  2. Unplug from the mains.
  3. Move the device.
- If there is a power cut whilst the device is operating, data on the hard disk drive can be lost. Use a UPS.
- The hard disk drive is very sensitive. Improper operation or an unsuitable environment could damage the hard disk drive after a number of years of operation. Indications of this are the playback stopping unexpectedly and visible mosaic effect in the image. Under certain circumstances there is no indication of a defective hard disk drive.
- If there is a defect, no playback of recordings is possible. In this case the hard disk drive must be replaced

ABUS 4-Channel Wi-Fi Network Video Recorder

TVVR36500

Manufacturer
ABUS Security-Center GmbH & Co. KG
Linker Kreuthweg 5
86444 Affing (Germany)