

ABUS 4-channel digital recorder TVVR30004



User guide

Version 1.0



English

This user guide contains important information on starting operation and using the device.

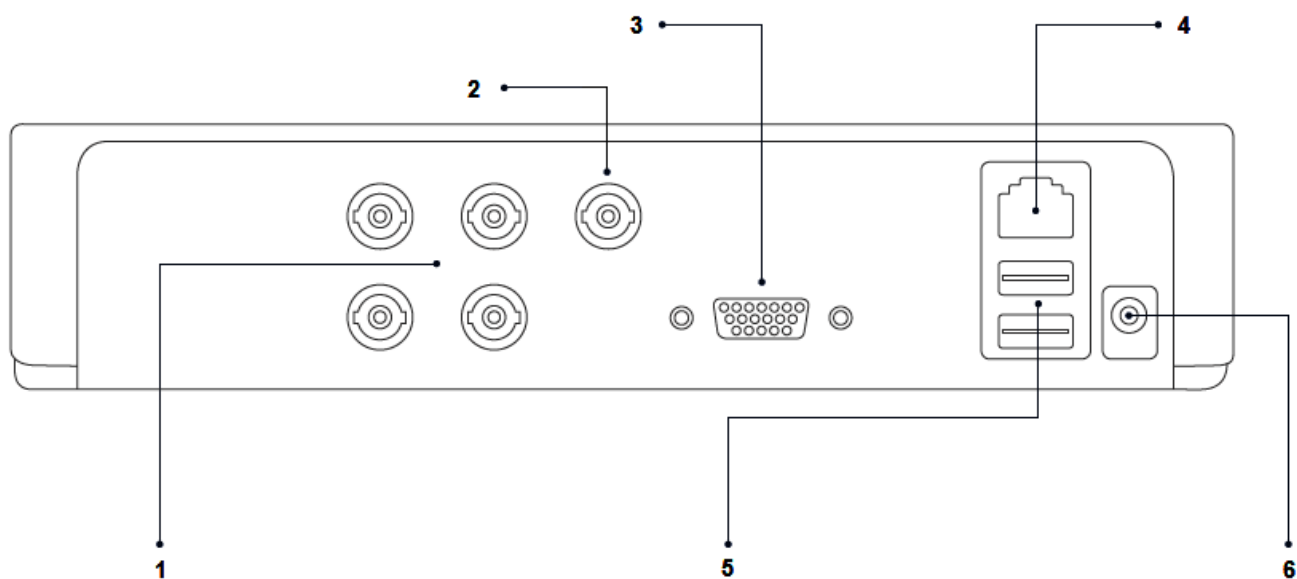
Make sure that this user guide is handed over when the product is given to other persons.

Keep this user guide to consult later.

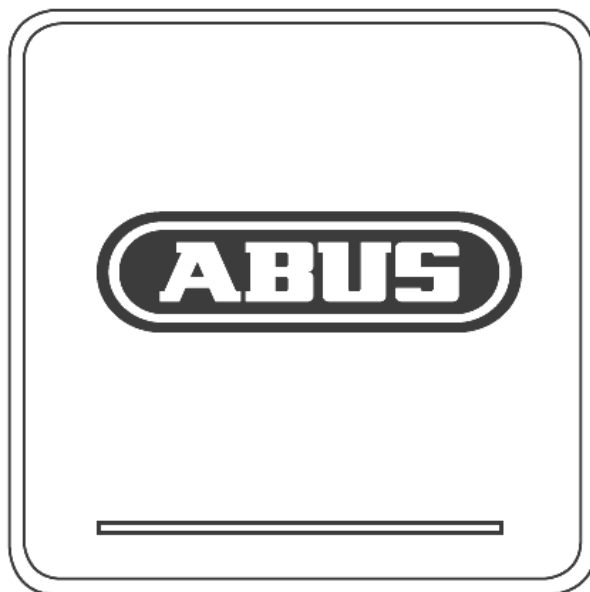
A list of contents with the corresponding page number can be found in the index.

Device overview

Rearside



LED illumination



System operation

General information

The device can be controlled as follows:

- Using the USB mouse

Connections on the rear of the device



Note

Pay attention to the overview on page 60.

No.	Name Function
1	VIDEO IN: BNC video inputs
2	VIDEO OUT: BNC video output <ul style="list-style-type: none">• BNC plug for video output to connect to a monitor as an alternative to VGA output (No. 3)
3	VGA: <ul style="list-style-type: none">• VGA monitor connection (9-pin), video output signal
4	LAN: <ul style="list-style-type: none">• Ethernet LAN connection
5	USB: <ul style="list-style-type: none">• USB connections for operating with a mouse and data export
6	Power IN: <ul style="list-style-type: none">• 12 V DC

Mouse operation

**Note**

Further descriptions in these operating instructions are made with the mouse.

The device is suitable for use with a USB mouse. Connect the mouse to the USB port.

Button	Function
Left	Single-click: <ul style="list-style-type: none">• Selection in the menu, activation of an input field or a TAB, display of the Quick Set menu Double-click: <ul style="list-style-type: none">• Switches between the screen display of single and multiple images in the live view and during playback Click and drag: <ul style="list-style-type: none">• In PTZ mode: Camera control• Set-up of alarm areas or zones
Right	Single-click: <ul style="list-style-type: none">• Calls up the pop-up menu
Scroll wheel	In the live view: <ul style="list-style-type: none">• Shows previous / next camera In menus: <ul style="list-style-type: none">• Scrolls through the menus

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Quick guide

Before you start

The following preparatory steps must be made:

1. Pay attention to the general information, safety information and notes on setting up and connecting the device (see page 67).
2. Check the contents of the package for completeness and damages.
3. Insert the batteries into the remote control.



Note

Pay attention to the information in the separate quick guide.

Installing the HDD



Warning

Switch off the device and disconnect it from the mains power supply.
Pay attention to the required earthing of the device to avoid static discharge.

1. Install one or more HDDs (see the separate quick guide).
2. First make a connection to the motherboard with the blue data cable (small connector).
3. Connect the power supply cable (large 5-pin connector).
4. Check that the connections are secure.
5. Close the housing.



Note

Only use HDD's that are approved for video recording and 24/7 usage.

Establishing the connections



Note

Pay attention to the minimum radius when laying cables. Do not kink the cable.

1. Connect all cameras to the recorder.
2. Connect the monitor to the VGA or BNC connection.
3. Connect the mouse to the USB port.
4. Connect the device to the mains power supply, it will then start automatically.

Configuring the device



Note

Pay attention to the information in the separate quick guide.

- Proceed through the individual steps in the setup wizard (see page 73).
- The following settings are configured in sequence:
 - Language selection for the user interface
 - Administrator setup
 - General settings (date, time etc.)
 - HDD management (initialisation etc.)
 - Network settings
 - Camera management



Note

Subsequent changes to the date and time can lead to the loss of data!



Note

Check the ABUS homepage (www.abus.com) if for this device any firmware updates are available and install these

- Pay attention to the menu overview on page 80, plus the notes and explanations on basic system operation on page.





Pay attention to the notes on the following:

Live view	P. 75
Playback	P. 78
Data export	P. 101
Troubleshooting	P. 108

Important safety information

Explanation of symbols

The following symbols are used in this manual 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 labels are used in the text:

	Meaning
1.... 2....	Set of tasks or instructions with a defined sequence in the text
• ... • ...	Set of points or warnings without a defined sequence in the text

Proper use

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

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

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

Note

Data storage is subject to national data-protection guidelines.

During installation, inform your customers regarding the existence of these guidelines.

General information

Before using the device for the first time, read the following instructions carefully and pay attention to all warnings, even if you are already familiar with electronic devices.



Warning

All guarantee claims become invalid for damages caused by non-compliance with these operating instructions.

We cannot be held liable for resulting damages.



Warning

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

All guarantee claims are invalid in such cases.

Keep this manual in a safe place for future reference.

If you pass on or sell the device, you must also include this user manual.

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 at the installation location, contact your power supply company.



Warning

Avoid data loss!

Always use an uninterruptible power supply (UPS) with overvoltage protection.

- Disconnect the device from the mains power supply before carrying out maintenance or installation work.
- The on/off switch does not completely disconnect the device from the mains power supply.
- To disconnect the device completely from the mains power supply, the plug must be disconnected from the mains socket. Therefore, the device should be positioned so that direct and unobstructed access to the mains socket is guaranteed at all times and the plug can be disconnected immediately in an emergency.

Important safety information

To avoid the possibility of fires, the plug should always be disconnected from the network socket if the device is not used for long periods. Disconnect the device from the mains power supply before impending electrical storms, or use an uninterruptible power supply.



Warning

Never open the device on your own! There is a risk of electric shocks!

If it is necessary to open the device, consult trained personnel or your local maintenance specialist.

- The installation or modification of a HDD should only be made by trained personnel or your local maintenance specialist.



Warning

The installation of additional equipment or modification of the device invalidates your guarantee if not carried out by trained personnel.

We recommend having the HDD installed by a maintenance specialist.

Your guarantee is invalidated in the event of improper installation of the HDD.

Overloading / overvoltage

- Avoid overloading of mains sockets, extension cables and adapters as this can result in fires or electric shocks.
- Use overvoltage protection to prevent damages caused by overvoltage (e.g. electrical storms).

Cables

- Always hold cables by the connector, and do not pull the cable itself.
- Never touch the mains cable with wet hands, as this can lead to a short circuit or electric shock.
- Never position the device, furniture or other heavy items on the cable. Ensure that the cable does not become kinked, especially on the connector and sockets.
- Never knot the cable, and do not tie it to other cables.
- All cables should be laid so that they cannot be stepped on or cause an obstruction.
- A damaged mains cable can cause a fire or electric shock. Check the mains cable from time to time.
- Never modify or manipulate the mains cable or plug.
- Do not use plug adapters or extension cables that do not conform to the applicable safety standards, and do not make alterations to power supply cables or mains cables.

Installation location / operating environment

- Position 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 rooms subject to high temperatures or moisture (e.g. bathrooms), or in excessively dusty rooms.
- Operating temperature and ambient humidity: -10 °C to 55 °C, maximum 85% relative humidity. The device may only be operated in moderate climate conditions.

Ensure the following:

- Sufficient ventilation must be present at all times (do not place the device in a storage rack, on thick carpets, on a bed or anywhere where the ventilation slots are covered. Make sure that a gap of at least 10 cm is present on all sides).
- The device must not be exposed to direct heat sources (e.g. heaters).
- The device must not be exposed to direct sunlight or strong artificial light.
- The device must not be placed in close proximity to magnetic fields (e.g. loudspeakers).
- Naked flames (e.g. candles) must not be placed on or near the device.
- Contact with spraying or dripping water and aggressive liquids must be avoided.
- The device must not be operated in close proximity to water, and must not be submerged under any circumstances (do not place objects containing water on or near the device, such as vases or drinks).
- Foreign objects must not penetrate the device.
- The device must not be exposed to strong variations in temperature, as this can lead to condensation and electrical short circuits.
- The device must not be exposed to excessive jolts or vibrations.

Remote control

- Remove all batteries if the device will not be used for a sustained period, as these can leak and damage the device.

Care and maintenance

Maintenance is necessary if the device has been damaged. This includes damage to the plug, mains cable and housing, penetration of the interior by liquids or foreign objects, exposure to rain or moisture or when the device does not work properly or has fallen.

- Disconnect the device from the mains power supply before maintenance (e.g. cleaning).
- If smoke develops or unusual noises or odours are detected, then switch off the device immediately and pull the mains plug from the socket. In such cases, the device should not be used until it has been inspected by a qualified technician.
- Maintenance work should only be carried out by qualified specialists.
- Never open the housing on the device or accessories. There is a risk of fatal injury due to an electric shock when the housing is opened.
- Clean the device housing and remote control with a damp cloth.
- Do not use solvents, white spirit or thinners as these can damage the surface of the device.
- Do not use any of the following substances:
 - Salt water, insecticides, solvents containing chlorine or acids (ammonium chloride) or scouring powder.
- Gently rub the surface with a cotton cloth until it is completely dry.



Warning

The device works under dangerous voltages. The device must only be opened by authorised specialists. All maintenance and service work must be carried out by authorised firms. Improper repairs can expose device users to the risk of fatal injury.

Accessories

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

Putting into operation

- Observe all safety and operating instructions before putting the device into operation for the first time.
- Only open the housing to install the HDD.



Warning

When installing the device in an existing video surveillance system, ensure that all devices are disconnected from the mains power supply 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 mains power supply or domestic installation puts both you and other persons 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 and the device

- Do not allow children access to electrical devices. Never allow children to use electrical devices without supervision. Children may not be able to accurately detect possible risks. Small parts can be life-threatening if swallowed.
- Keep batteries away from small children. Call for medical assistance immediately if a battery is swallowed.
- Keep packaging materials away from children (danger of suffocation).
- This device should not be used by children. If used improperly, spring-loaded parts can be ejected and cause injuries to children (e.g. eye injuries).

Introduction

Dear customers,

This device complies with the requirements of the applicable EU directives.
The declaration of conformity can be ordered from:

ABUS Security-Center GmbH & Co. KG
Linker Kreuthweg 5
86444 Affing
GERMANY

To maintain this status and to guarantee safe operation, it is your obligation to observe these operating instructions!

Read the entire operating manual carefully before putting the product into operation and pay attention to all operating and safety information!

All company names and product descriptions are trademarks of the corresponding owner. All rights reserved.

In the event of questions, please contact your local maintenance specialist or dealer.



Disclaimer

These operating instructions have been produced with the greatest care. Should you discover any missing information or inaccuracies, please contact us under the address shown on the back of the manual. 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 operating instructions at any time and without prior warning. ABUS Security-Center GmbH is not liable or responsible for direct or indirect damages resulting from the equipment, performance and use of this product. No forms of guarantee are accepted for the contents of this document.

General information

In order to use the device correctly, read this user manual carefully and keep it in a safe place for later use.

This manual contains instructions on recorder operation and maintenance. Consult an authorised specialist if the device needs to be repaired.

Unpacking the device

Handle the device with extreme care when unpacking it.

The packaging is made of reusable materials, and should always be passed on for recycling.

We recommend the following:

Paper, plastic packaging, cardboard and corrugated cardboard should be disposed of in the appropriate recycling containers.

If recycling containers are not available in your local area, then you can dispose of these materials as domestic waste.

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

Scope of delivery

- ABUS 4-channel digital recorder
- Power supply unit
- USB mouse
- SATA cable and screws for hard drives
- CD ROM
- User manual (On CD or enclosed)
- Quickguide (On CD or enclosed)

On-screen keyboard

The on-screen keyboard appears after clicking on a text entry field with the mouse:



The following screen keyboard appears during mere numerical entry:



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

- To enter the character, left-click the mouse.
- To finish data entry, press **Enter**.
- To delete the character in front of the cursor, click on **←**.
- To switch between upper and lower case, click on the framed **a** symbol. The current setting is displayed above the keyboard.
- To cancel the entry or exit the field, press **ESC**.

Starting the device



Important

The device must only be operated with the mains power specified on the type plate.

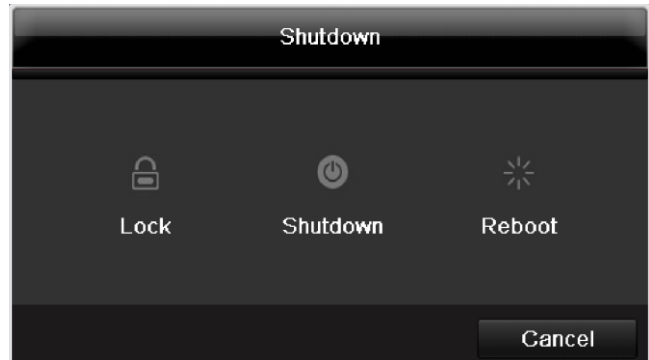
For safety reasons, use an uninterruptible power supply (UPS).

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

1. The device carries out a self-test during the start-up procedure.
2. The setup wizard appears. Exit the wizard to access the live view.

Switching off, locking and rebooting the device

Click on “ShutDown” in the main menu. The overview appears.



1. To switch off the device, select **ShutDown** and confirm by pressing **Yes**. The device is then switched off.
 - Do not press any keys during the shutdown procedure.
 - Now pull out the plug of the power supply unit.
2. To lock the system, select the corresponding **Lock** symbol on the left. The user interface is now locked and a password must be entered to access the menu.
3. To reboot the device, select the corresponding **Reboot** symbol on the right. The device is then rebooted.

Switching on the device

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

Status displays

General information

The following status displays indicate the current operating state:

- LEDs on the front of the device
- Acoustic signal tones
- Icons (display elements) on the monitor



Note

Pay attention to the information in the separate quick guide.

DVR LED status bar

State	Function
Blue (constantly lit)	System status is OK
Off	The device is switched off or the status display has been manually deactivated in the display.

Display on the monitor

The device shows the date and time, camera name and whether a recording is in progress.

- Continuous recording: blue "R"
- Motion detection recording yellow "R"

Setup wizard

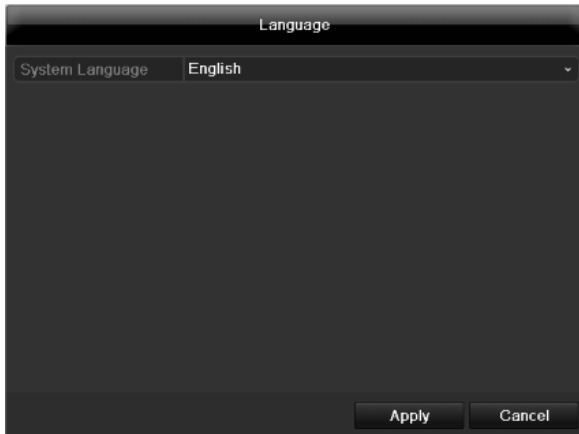
Setting up the system

The setup wizard guides you through the necessary basic system settings. The DVR is then set up for recording and surveillance.

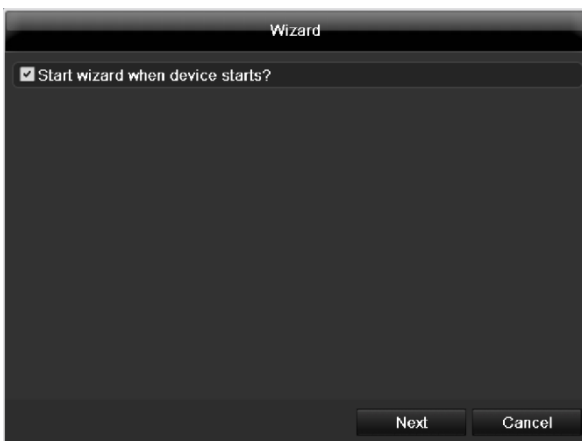
Note

All detailed settings can be found in the device menu (see overview on page 60).

The language selection appears after switching on for the first time:



1. Click the entry field and select the desired language from the list. Click on **Apply** to continue. The following query appears:



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

Note

After the system is set up, you can untick the box. The setup wizard is then no longer started automatically.

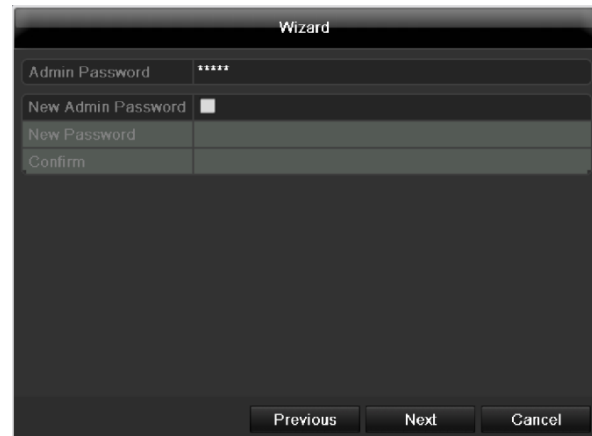
Setting up the administrator



Warning

Note down the admin password. The following password is preset

“1 2 3 4 5”



1. Click the entry field and enter your admin password.
2. To assign a new password, tick the box next to **New Admin Password**.
3. Enter the new password and confirm in the field below.
4. Click on **Next**.

Time / Date



Enter the system time (date and time). Click on **Next** to accept the data.

Network Settings

Wizard	
NIC Type	10M/100M Self-adaptive
Enable DHCP	<input type="checkbox"/>
IPv4 Address	192 .168 .0 .20
IPv4 Subnet Mask	255 .255 .255 .0
IPv4 Default Gateway	196 .168 .0 .1
Preferred DNS Server	
Alternate DNS Server	

Note

To check whether DHCP can be selected (or if you have to set the IP address and other settings manually), consult your network administrator.

1. **DHCP activated:** If DHCP is set up in the network router, then tick the DHCP box. All network settings are then made automatically.
2. **DHCP not activated:** Enter the data manually (IPv4 address, IPv4 subnet mask and IPv4 default gateway = IPv4 address of the router). You can also optionally enter the address of the DNS server that you need for sending the E-mail.

A typical address specification is 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.

HDD Management

Label	Capacity	Status	Property	Type	Free Space
1	1.863GB	Normal	R/W	Local	0KB

1. To set up a new hard disc, activate the “Check box” with a left click and then click on **Init**.



Warning

All data on the drive is deleted!

2. Confirm the prompt by pressing **OK**. The HDD is then set up for operation. The progress is displayed on the status bar.
3. Exit the setting by pressing **Next**.

Camera recording

Wizard	
Camera	Analog 1
<input checked="" type="checkbox"/> Start Recording	
<input type="checkbox"/> Normal	
<input type="checkbox"/> Motion Detection	

1. At “Camera” select a camera with which you would like to record.
2. Activate the check box “Start recording”.
3. Select the type of recording. You can choose between “Time plan” and “Motion recognition”. Arm the motion detection inside the camera for recording motion.
4. Press **Copy** to take on the setting for other cameras. For this, select the cameras that appear in the new window. Activate the respective check box with a mouse click.
5. Finalize the setting and end the installation assistant with **OK**.

Live view

Overview

The live view starts automatically after the device is switched on.

You can also go back to the live view by pressing the **Menu** key repeatedly.



The following menus are found in the screen header:

- Menu
- Playback
- PTZ

The view pop-up menu is found on the right. The time and date are displayed on the right.

- Click on the symbol to open the pop-up menu of the multi view.
- Click on one of the symbols to switch between the different views.



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

- By double-clicking the left mouse key, you can display the camera image as a full-screen view 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 <ul style="list-style-type: none"> • Recording at motion detection
R	Blue: Recording <ul style="list-style-type: none"> • Continuous recording

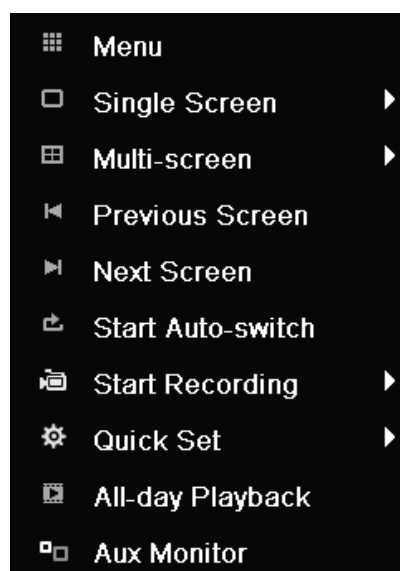
Pop-up menu for mouse operation



Note

Press the right mouse button when the cursor is positioned on a live image.

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



Menu	Opens the main menu
Single Screen	Full-screen view for selected camera
Multi Screen	Various camera layouts
Previous Screen	Changing the presentation of the previous camera
Next Screen	Displays the next camera(s)
Start Auto-Switch	Starts the camera sequence
Start Recording	Starts motion detection or the schedule for the entire day
Quick Set	Setting for the output mode
All-day playback	Switches to playback mode
Aux Monitor	to spot monitor



Note

Stop Auto-switch:
Specify the delay in the image sequence in the display settings.



Note

Activation of "AUX monitor" without a connected spot monitor:
Mouse pointer function is deactivated.

Selection bar in the camera image

Click on the camera image in single or multi view. A selection bar appears:



(1) (2) (3) (4) (5) (6)

No.	Meaning/function
(1)	Area for moving the miniature bar
(2)	Activate/deactivate manual recording
(3)	Instant playback of the last 5 minutes
(4)	Digital zoom
(5)	Picture display settings
(6)	Close the selection list

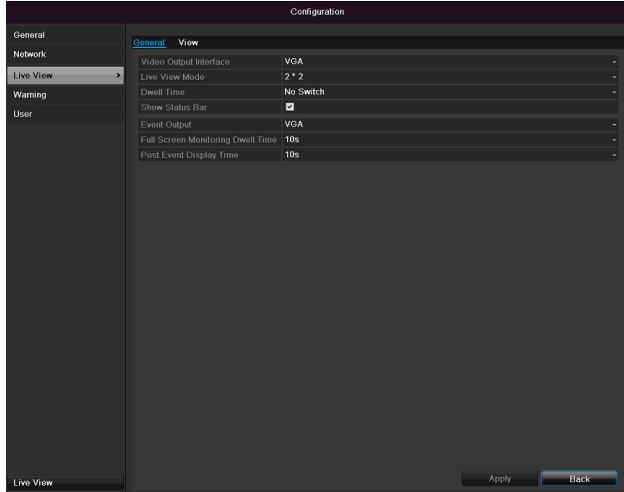
Settings



Note

The live view can be set as follows.

Open the main menu, then click on “Configuration”. Then click on “Liveview”:



The following settings are available in the TAB “General”:

Video Output Interface	VGA/HDMI, Main CVBS Select the connection where the settings are changed
Live View Mode	Different camera layouts
Dwell Time	Switching time between the individual cameras and the sequence display
Display the status bar	Activate/deactivate the status bar
Event Output	Allocate monitor for the output of events
Full Screen Monitoring Duration	in seconds, where the event on the allocated monitor will be displayed.
Post Event Display Time	in seconds, the duration of the Pop-up window when an event occurs.



Note

The BNC output can be used either for a spot monitor or a separate monitor.



Note **VGA monitor connected:**

A connected VGA monitor automatically becomes the main monitor where the audio output is also assigned. The BNC output Video Spot Out output displays the cameras in sequence and in full screen.

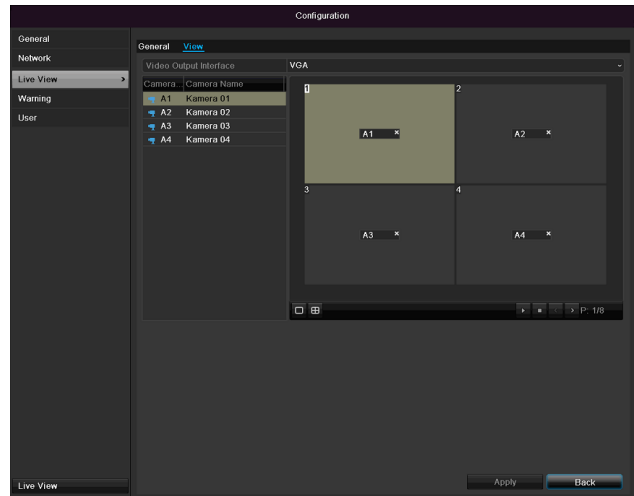
No VGA monitor connected

If during the boot process of the DVR the VGA cable is not connected, the main video signal is displayed at BNC output . Connect the VGA cable and reboot the DVR in order to display the main video signal at the VGA output.

Setting the camera output

You can display a maximum of 4 cameras simultaneously in the live view.

1. Click on the TAB “View”.



2. Select the display mode.

- 1 x 1
- 2 x 2

3. The camera signal is assigned to the corresponding image section using the navigation keys.

- “X” means that this camera is not displayed.

4. Click on **Apply** to accept the settings.

Playback

General information

Playback can be made in three different ways:

- Through the video search in the main menu
- From the live view
- Through the log file in the maintenance menu

Note

The buttons “previous file/day/event” are used differently depending on the playback mode:

Normal playback:

By pressing the button the playback jumps to the previous/next day.

Video Search:

By pressing the button the playback jumps to the previous/next event day.

Video Export:

By pressing the button the playback jumps to the previous/next file.

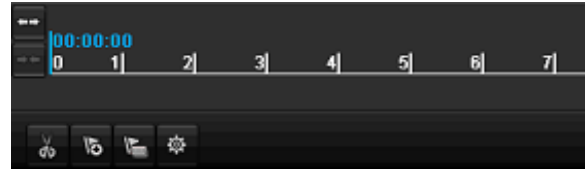
Note

It is possible to start a simultaneous playback with up to 4/8 cameras.

Using the control panel

The control panel (4) is used for controlling the running playback. The symbols have the following meaning:

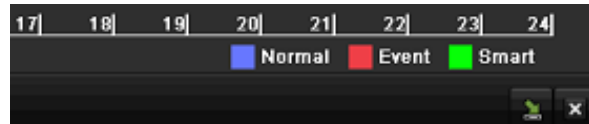
(1)



(2) (3) (4)



(5) (6) (7) (8) (9) (10) (11) (12) (13)

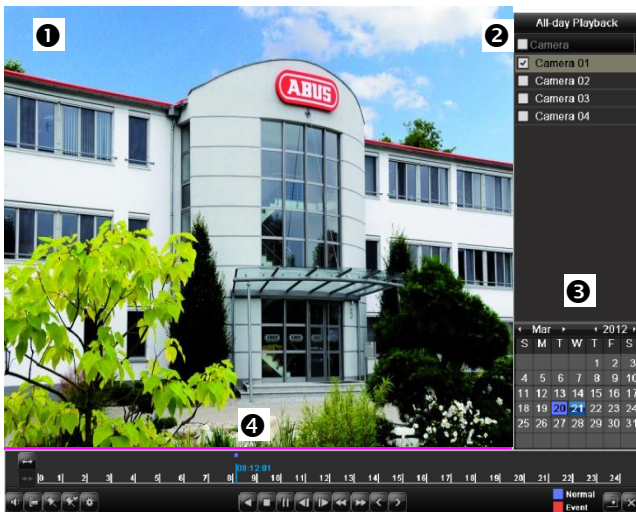


(15)

(16)(17)

Playback screen

Playback is controlled on the control panel:



No.	Area
①	Running playback with date and time
②	Used to select the camera for feedback
③	Calendar with recording type
④	Control panel with time bar (see right)

No.	Meaning / function
1	Start video clip
2	Add marking
3	Add user-defined marking
4	Manage markings
7	Backwards playback
8	Stop
9	Playback start / pause
10	Jump backward 30 seconds
11	Jump forward 30 seconds
12	Slow forward (slow motion) (1/16x - 1x)
13	Fast forward (1x - 16x)
14	Previous recording marking
15	Next marking
16	Time bar: <ul style="list-style-type: none"> • Click on the time bar with the mouse to continue playback from another point • To start playback from a specific time, click on the slider and drag it to the required time
17	Recording type Blue = Continuous recording Red = Event recording Green = Smart
18	Hides the control panel
19	Exits playback



Note

You can zoom in on the screen image.

- Right-click in the running playback.
- Please choose 'Digital Zoom'.
- The zoom mode is active. Shift the zoom area by means of the window in the miniature screen.
- Right-click the image to finish.

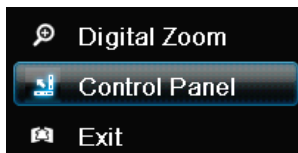
Please click on 'Tag management' (6):



- In order to change the description of your marking, click on the process symbol. To remove, click on the delete symbol.

Right click when playback is running

Perform a right click on the playback image. The following options are available:



Camera	Select a camera channel
Control field	Display/hide the control field for controlling playback
Exit	End playback

Main menu

Menu overview

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

Furthermore you can find important information regarding the device on the right side of the menu.

- Click on the menu to open it.
- Click **Exit** to close the menu overview.

Menu

ABUS General Cameras HDD

Settings Playback Video Export Maintenance

DVR Model TVVR30004
Firmware Version V2.2.10, Build 131015
Network In/Out 0 / 60Mbps

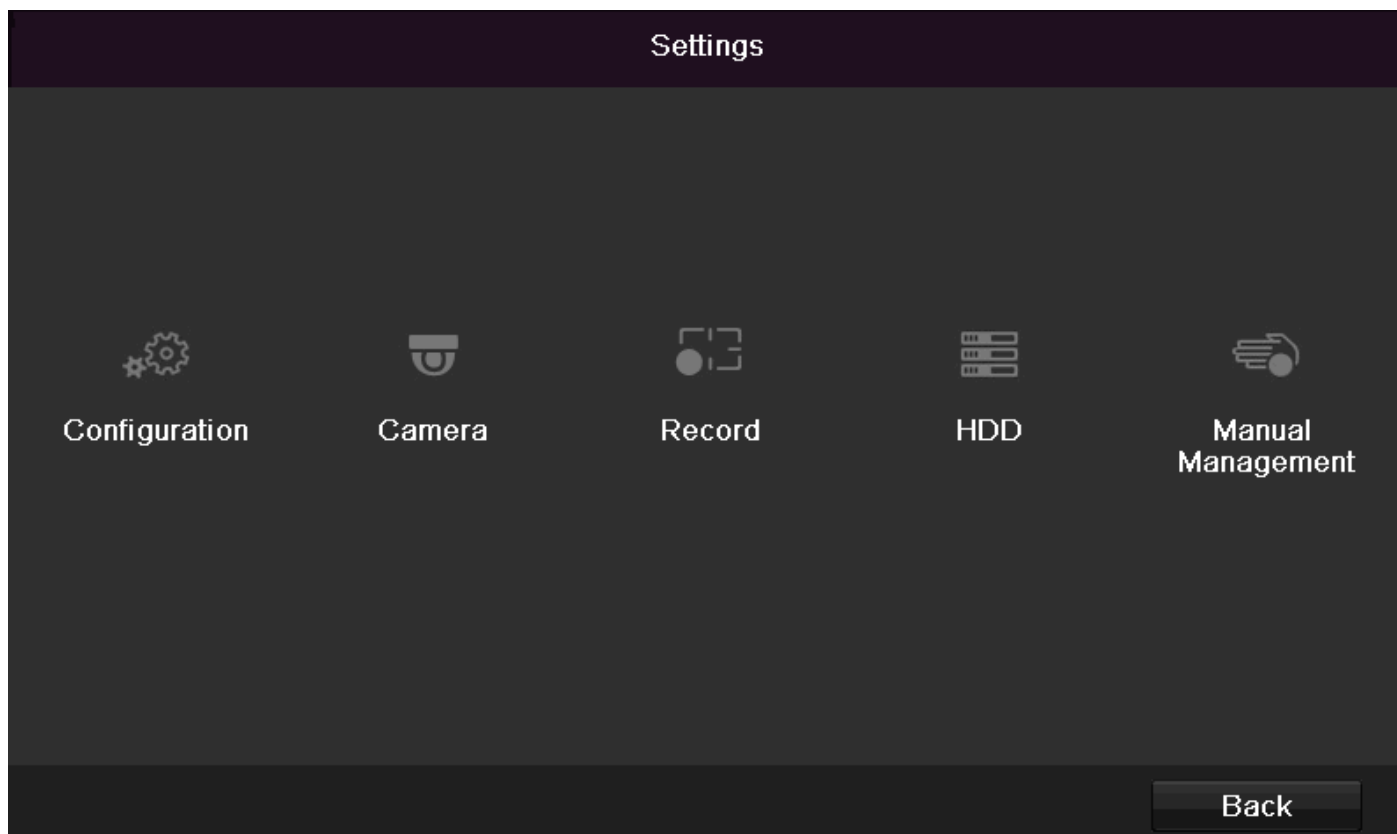
	LAN #1	
IP Address	192.168.0.20	
MAC Address	8c:e7:48:2b:c0:8a	
DHCP	No	

	Port	
HTTP	80	
DVR	11601	
RTSP	11602	

Shutdown Exit

Menu description

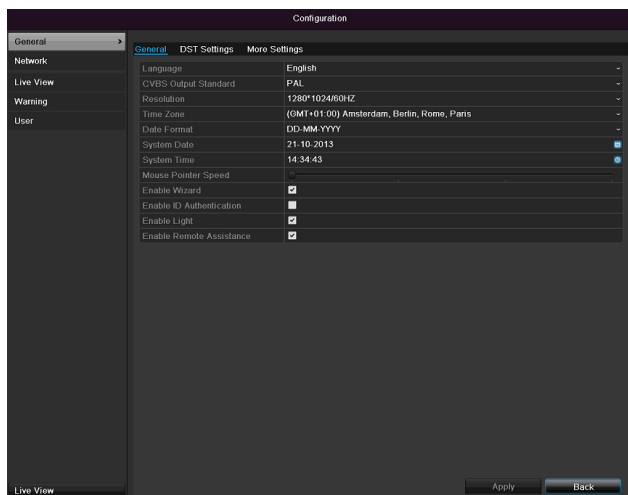
Menu	Description	See page...
Settings	Includes the menus Configuration, Camera, Record, HDD, Playback.	81
Playback	Parameter-controlled search for video and image recordings which were triggered by events such as motion detection, as well as markings set in playback.	100
Video Export	Parameter-controlled search for video and image recordings which were triggered by events such as alarms or motion detection, as well as alarm events and markings set in playback.	101
Maintenance	System information, searching logs, importing/exporting configurations, device maintenance such as updating new firmware, loading factory settings, displaying network loads.	103



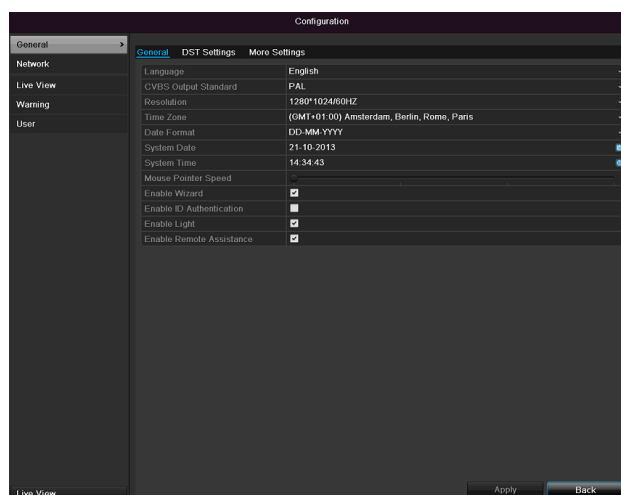
Menu description

Menu	description	page
Configuration	Used for managing all device settings (General, Network, Live View, Exception, User).	82
Camera	Menu for setting camera parameters (OSD configuration, image mode, motion recognition, Private Zone, Tamper Monitoring, Video Loss).	90
Record	Menu to set recording parameters (time plan, camera resolution, camera stream etc.).	94
HDD	Used for initialising or managing installed HDD (assigning read/write functions, cameras, network HDD management etc.).	97
Manual Management	Menu for setting manual recordings.	99

Configuration



General



Note

The “Configuration” menu is used to manage all device settings.



Warning

Ensure that the date and time are set correctly. **IMPORTANT:** Subsequent changes to the settings can lead to data loss!

Ensure a data backup has been made in good time beforehand.

Overview

Menu	Setting	Page
General	Language, video, time, date, mouse pointer, password, time zones and other settings	82
Network	Required network settings (manual IP, DHCP, PPPOE, DDNS etc.)	83
Warning	Behaviour of the device in exceptional cases (HDD full, network disconnected etc.)	88
User	Adding and changing users, assigning authorisation rights	88

Note

Pay attention to the instructions in the corresponding sections.

“General” tab	Setting
Language	Language on the OSD
CVBS Output Standard	PAL / NTSC
Resolution	Resolution on the monitor
Time Zone	GMT (Greenwich Mean Time)
Date Format	MM-DD-YYYY, DD-MM-YYYY, YYYY-MM-DD
System Date/Time	Date and time
Mouse Pointer Speed	Set on the scroll bar (left = low speed; right = high speed)
Enable Wizard	Box ticked: Wizard will appear after restart of the device.
Enable ID Authentication	Box not ticked: In order to enter a menu no password has to be entered. At access by network the password has to be entered. Box ticked: Password must be entered in order to use the menu.
Activating LED status bar	Box not ticked: The LED status display is deactivated. Box ticked: The LED status display glows blue when the recorder is on.
Activate remote access	Box ticked: Access for remote configuration is activated for technical support.



Note

Activate remote access

Activate this function to enable optimum technical support.

TAB "DST settings"	Setting
Auto DST Adjustment	With an activated check box, the device converts automatically to summer time.
Enable DST	With an activated check box, an exact start / end date can be selected
From / To	Date of DST start / end
DST Bias	Daylight Saving Time Bias: Correction of the DST to the reference time
TAB "More Settings"	Setting
Device Name	Unique specification of the device
Device Number	Used for unique identification when using remote control
CVBS Output Brightness	Scroll bar (left = darker; right = brighter)
Operation Timeout	Never / 1 to 30 minutes – regulates how long the menu is shown
Output mode menu	Renders the image softer or sharper
Event message	Box ticked: Automatic alarming when notifications such as motion detection , HDD full, etc. occur.

Confirm the settings by clicking **Apply** and leave the menu with **OK**.

Network configuration

Correct network settings are essential in the following cases:

- When using remote control of the device and surveillance over your server



Note

Please read the following basic instructions before setting up the device.

A network is a connection of at least two network-capable devices.

Transmission types:

- Wired networks (e.g. CAT5 cable)
- Wireless networks (WLAN)
- Other transmission types (Powerline)

All systems have certain similarities, but can also differ in many ways.

Terms and definitions

An overview of relevant terms when using the device in a network can be found below.

Parameter	Setting
IP address	An IP address is the unique address of a network device within a network. This address may only appear once within a network. Certain IP address ranges are reserved for public networks (e.g. 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 used for making decisions and assignments during routing. 255.255.255.0 is the standard subnet mask in home networks.
Gateway	A gateway is a network device which allows all other network devices to access the Internet. This can be the computer connected to the DSL modem or – usually – the router or access point within the network.

Parameter	Setting
Name server	The name server is responsible for assigning a unique IP address to a web address or URL (e.g. www.google.de). Also known as DNS (Domain Name Server). When a domain name is entered into a browser, the DNS searches for the corresponding IP address of the server and forwards the query on. 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 corresponding manual for more information). Note: When using fixed IP addresses and a DHCP server, make sure that the fixed IP addresses are outside the address range assigned by DHCP. Otherwise, problems could occur.

Port	A port is an interface used for communication by different programs. Certain ports are fixed (23: Telnet, 21: FTP), whilst others can be freely selected. Ports are important for different applications (e.g. external access to the device over a browser).
MAC address	The MAC address (Media Access Control or Ethernet ID) is the specific hardware address of the network adapter. This is used for the unique identification of the device in a computer network.

Network layout

The device must be physically connected to the network over a CAT5 cable (see the connections on page 60).



Note

Pay attention to the specific information and instructions on the network devices.

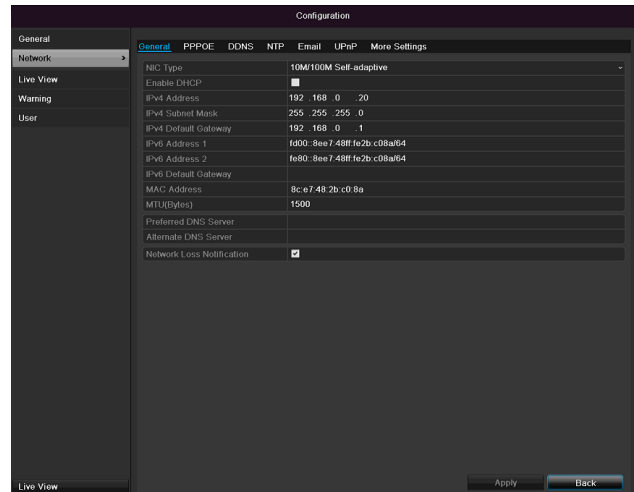
Several switches, routers and access points can be connected to each other. Firewalls and other security software can affect the network.



Warning

When using a router, the network clients (e.g. the recorder) can be connected to the Internet and vice versa. Make sure to use protective measures to prevent unauthorised external access (e.g. firewall, changing passwords, changing ports)!

Network-configuration



TAB	Settings
General	Settings for the local net and selecting the network mode.
PPPOE	PPPOE is used on ADSL connections and when using modems in Germany. Click on "Set" to enter the access data (ID and password) for your provider.
DDNS	Server for Dynamic Domain Name System management. Used for updating host names or DNS entries
NTP	Network Time Protocol Server for time synchronisation
Email	Used to specify the e-mail settings which are sent as an e-mail to a specific address in the event of an alarm.
UPnP	Universal Plug and Play Settings for the convenient control of network devices in an IP network.
More Settings	Used to configure the IP address of the PC where a message should be displayed in the event of an alarm

TAB General

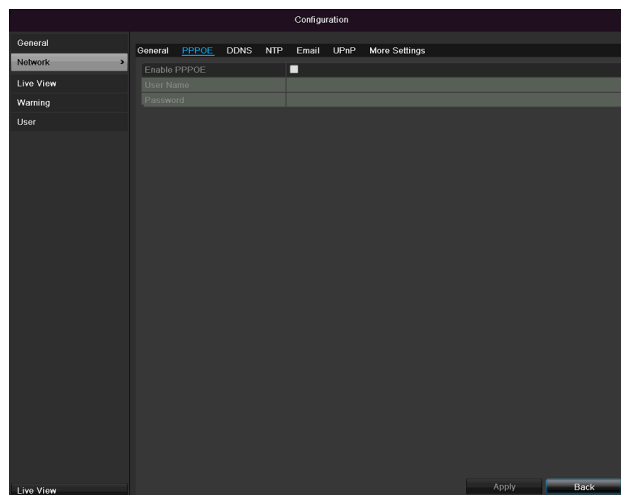
Parameter	Setting
NIC Typ	Set the transmission speed of the installed network card here. Tip: 10M/100/1000M self adaptive
Enable DHCP	Tick the box if the IP addresses are assigned dynamically via DHCP in the network. DHCP activated: Subsequent entry fields are inactive (parameters assigned via DHCP). Note: If the IP addresses are assigned manually, ensure that DHCP is not active (box not ticked).
IPv4 Adress	Address of the network device in the network (manual assignment)
IPv4 Subnet Mask	Usually 255.255.255.0
IPv4 Default Gateway	Address of the gateway for Internet access
IPv6 Adress 1	Currently no functioning
IPv6 Adress 2	Currently no functioning
IPv6 Standard Gateway	Currently no functioning
MAC Adress	Hardware address of the installed network card
MTU (Bytes)	Describes the max. size of the largest protocol data .
Preferred DNS Server	Address of the Domain Name Server (usually the IP address of the gateway)
Alternate DNS	IP address of the alternative DNS server
Report network interruption	Box ticked: Acoustic alarm in the event of a network interruption



Note

In certain modes some of these settings cannot be selected.

PPPOE



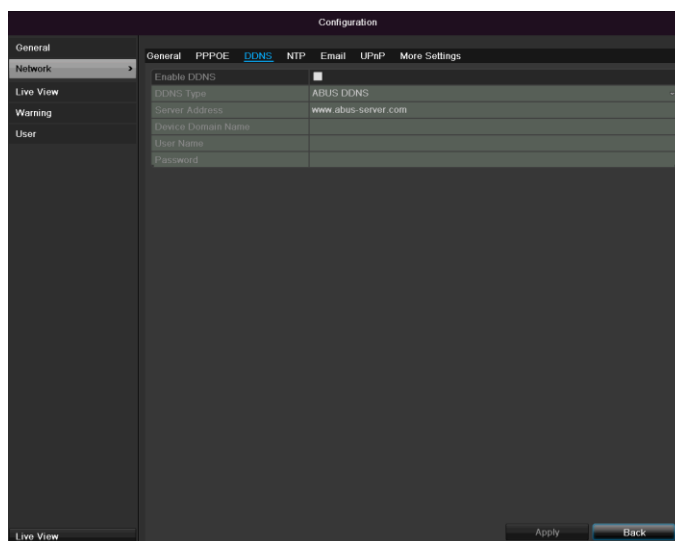
1. Tick the PPPOE box, enter the user name (Internet access ID) and password, then confirm the password.
2. Confirm the settings by pressing **Apply**.



Warning

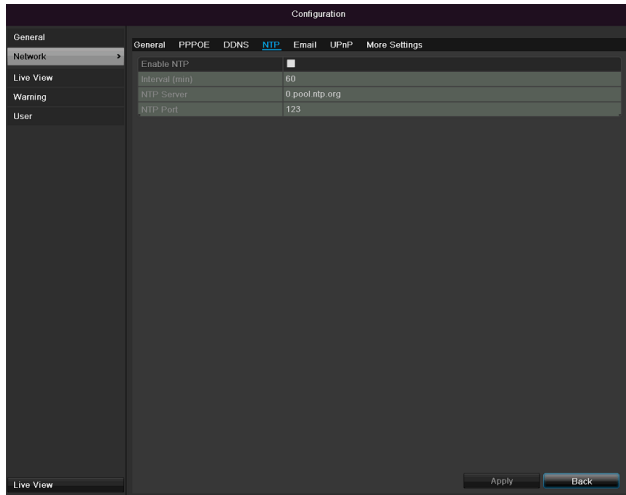
Use PPPOE only if there is no router available.

DDNS



1. To use the ABUS DDNS function, you must first set up an account under www.abus-server.com. Please note the FAQs on the website when doing this.
2. Tick the "Enable DDNS" box, enter 'ABUS DDNS' as the "DDNS Type", then enter www.abus-server.com or "62.153.88.107" under "Server Address".
3. Confirm the settings by pressing **Apply**. The IP address of your Internet connection is now updated on the server every minute.

NTP



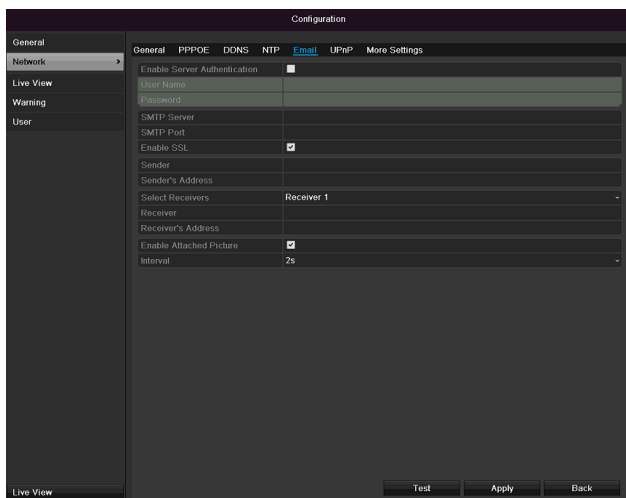
Note

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 then enter the interval at which the synchronisation should be made again. Enter the IP address of the NTP server and the NTP port.
2. Confirm the settings by pressing **Apply**.

Email

In the event of an alarm, the device can send a message by e-mail. Enter the e-mail configuration here:



Parameter	Setting
Enable Server Authentica...	Tick the box when authentication is made on the server of the Internet provider
User Name	E-mail account at the provider
Password	Password connected to the e-mail account
SMTP Server	SMTP server address of the provider
SMTP Port	Enter the SMTP port here (Default: 25)

Enable SSL	Tick the box to activate the e-mail encryption
Sender	Name of the sender
Sender's Adresse	Corresponding e-mail address for the e-mail account
Sender's Receiver	Select three possible recipients for the e-mail
Receiver	Enter the name of the recipient here
Receiver's Adresse	Enter the e-mail address of the recipient here
Enable Attached Picture	Tick the box when camera images should also be sent with the e-mail as photo files
Interval	Select the interval between the individual recordings (2 to 5 seconds)

1. Enter the parameters of the e-mail notification.
2. Click on **Test** to send a test e-mail.
3. Please clarify if your settings are correct and you have received a confirmation mail. Then click on **Apply**.

Note

The device sends an e-mail to the specified recipients.

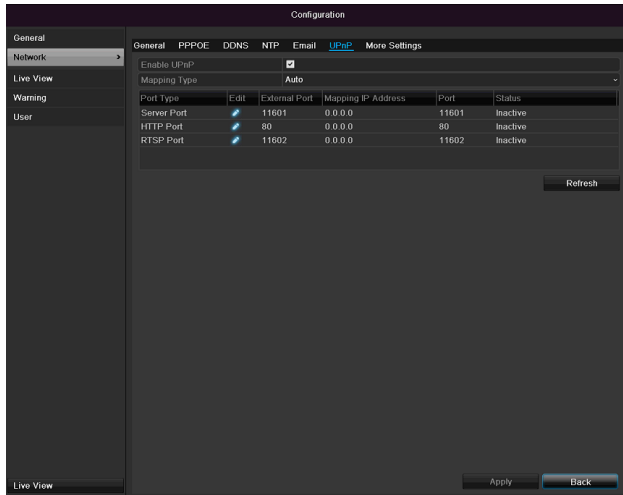
If the e-mail is not received, check the settings and correct them.

If necessary, check the spam filter of your e-mail client.

Note

Because of the cause of compatibility please do only use E-Mail clients where a dial-up via SMTP is possible.

UPnP



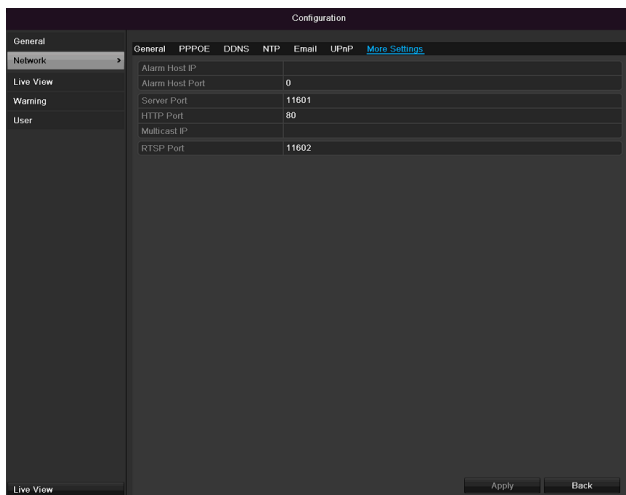
Note

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

Parameter	Setting
Enable UPnP	Tick box to activate visibility in an IP network.
Mapping Type	Select here whether port mapping is to be conducted automatically or manually.

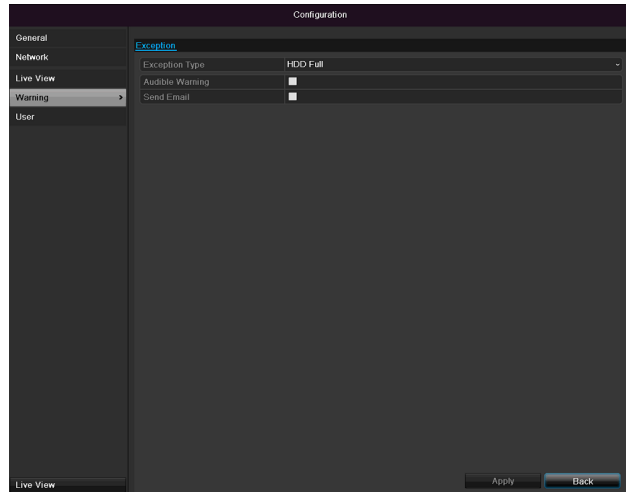
Confirm the settings by clicking **Apply** and exit the menu with **Back**.

More settings



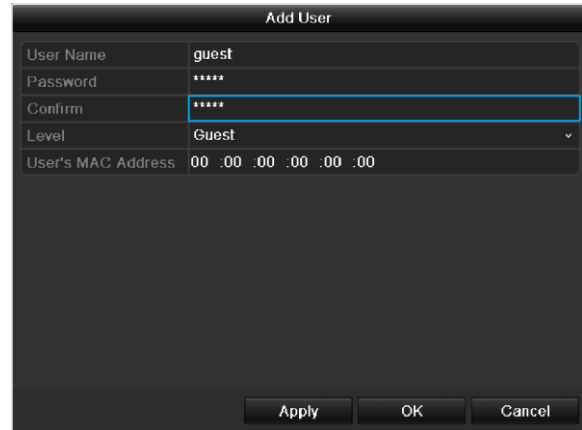
Parameter	Setting
Server Port	Port for data communication (General: 8000)
HTTP Port	Port for web server (General: 80)
Multicast IP	In order to minimize traffic you can enter a Multicast IP.
RTSP Service Port	RTSP-port (Default: 554)

Warning



You can add new users, delete existing users and change the settings in the “User Management” menu.

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



You can trigger a warning for the following error types:

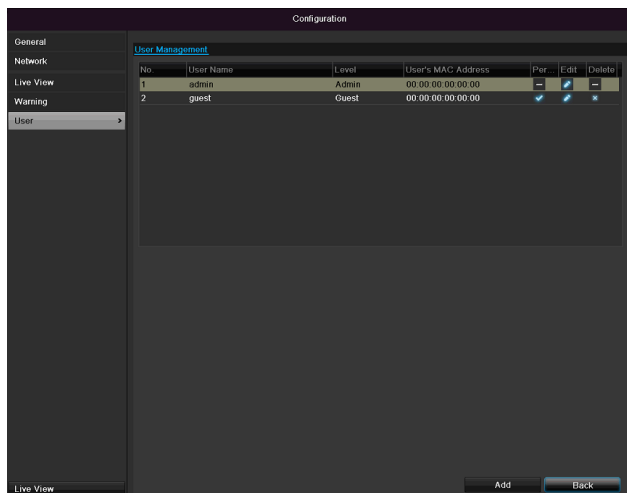
- HDD Full
- HDD Error
- Network Disconnected
- IP Conflict
- Illegal Login
- Video input/output signals not equal
- Exception Error


Parameter	Notifications
Audible Warning	The device emits a repeating tone.
Send E-mail	An e-mail is sent to a specific e-mail address. See page 86


Parameter	Setting
User Name	Unique identification
Password	Access code for the device (device management) Note: Change all passwords on a regular basis, using a combination of letters and numbers. Note down all passwords in a safe place.
Confirm	Enter the access code again here
Level	IMPORTANT: More access rights can be set on the Manager level than on the User level.
User's MAC Address	MAC address of the network adapter on the PC of the corresponding user Note: This limits access to the PC whose MAC address is 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 **Apply**.

User

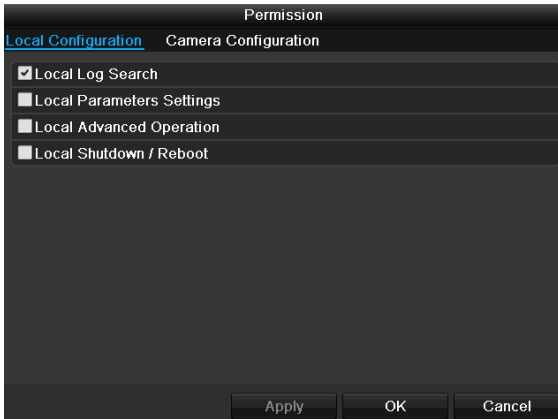


 **Warning**
Pay attention to the instructions below on assigning access rights.

 **Warning**
Note down the admin password.
The following password is preset
“1 2 3 4 5”

Permission

Control the access rights of the user by clicking the “Permission” symbol. Only the access data of users added manually can be changed:



Note

The user can make the settings locally (i.e. on the device) or change the parameters.

The user can access the device via the network connection.

The “Camera Permission” tab is used to set access rights for individual cameras (network or local).

Parameter	Setting
Local Configuration	Local Log Search Local Parameters Settings Local Advanced Operation Local Shutdown / Reboot
Remote Configuration	Remote Log Search Remote Parameters Settings Remote Serial Port Ctnrol Remote Video Output Cntrl Two-way Audio Remote Alarm Control Remote Advanced Operation Remote ShutDown / Reboot
Camera Configuration	Camera Permission

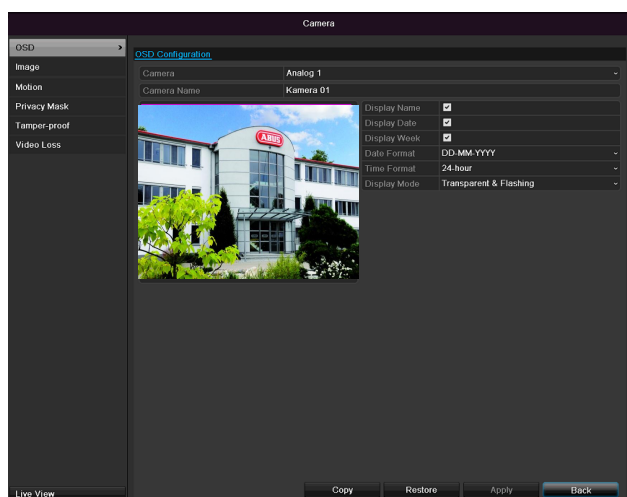


Warning

Change the general settings of the user (name, password, level, MAC address) by clicking the “Edit” symbol or in the TAB “Change password”.

Camera

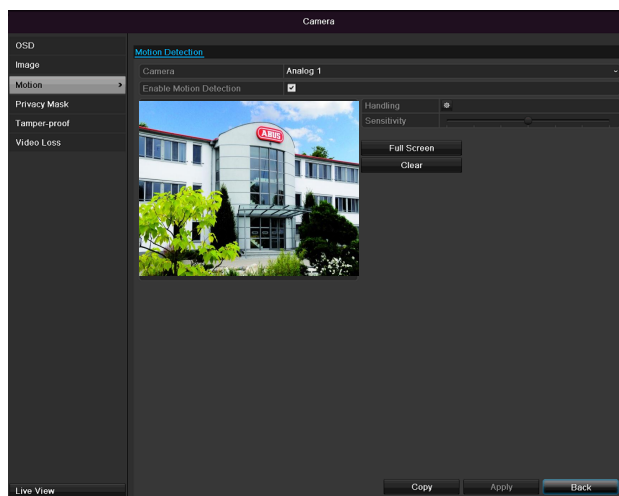
OSD



Motion

Select the camera channel under “Camera”.

Select the checkbox for the motion detection.



Camera	Camera to be set
Camera 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	Activate / deactivate display of week in the live view
Date Format	Selection of date display type
Time Format	12 hours / 24 hours
Display Mode	Settings relating to the presentation of camera name and date
OSD font	Changing the font size



Note

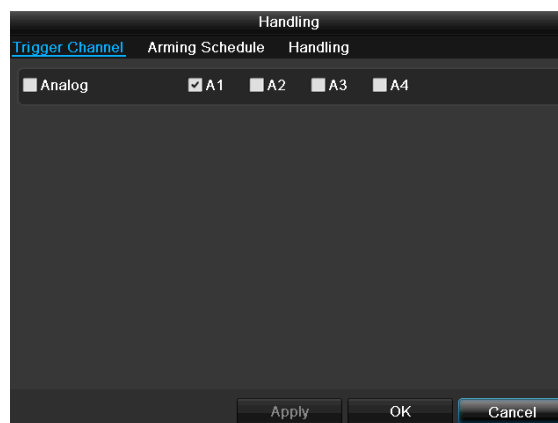
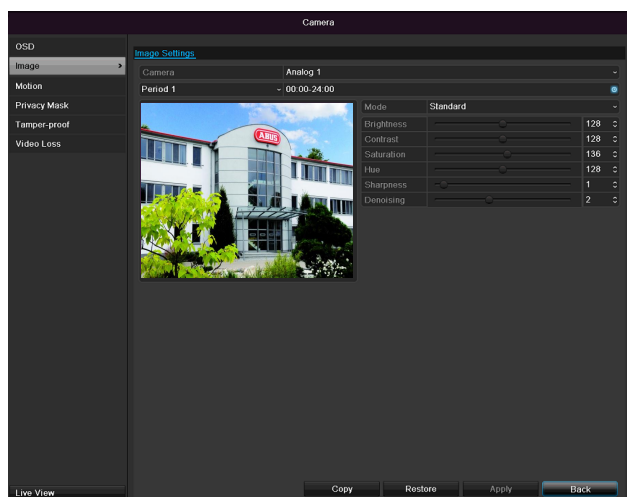
In order to record using the motion recognition, you must set the time plan at recording (see p.94).

Handling

Trigger Channel

When “Reaction” is clicked, the TAB **Trigger channel** appears (only with motion recognition):

Image



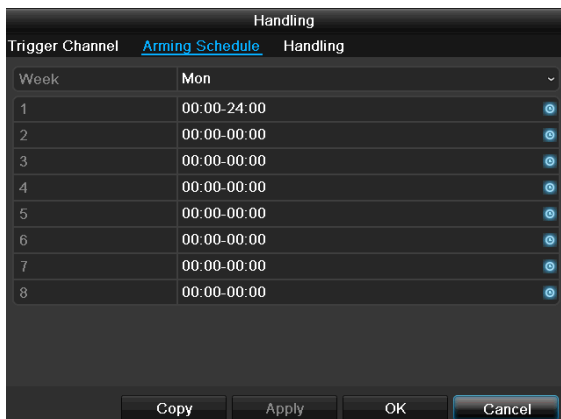
Select one or more camera channels that should carry out a reaction in the event of an alarm.

Confirm the settings by clicking **Apply** and leave the menu with **OK**.

Select the camera channel to be processed at “Camera”. Adapt the camera image to light conditions at “Mode” by means of specified settings or with user-defined settings.

Armin Schedule

Select the TAB **Arming Schedule**. Here you set the times when the reactions in the TAB **Reaction** are triggered.



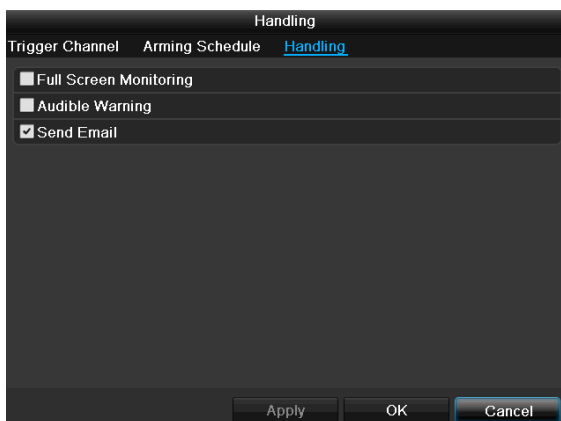
1. Select the day and enter the schedule.

Note
 You can define up to 8 time periods (each from 00:00 to 00:00). The times in the individual periods must not overlap.

2. Select whether the settings should be applied to all days of the week with using **Copy**.
3. Confirm the settings by clicking **Apply** and leave the menu with **OK**.

Handling

Click on the TAB **Handling**. Here you can configure the behavior of the recorder during a detected event (for example: motion got detected) by clicking the respective check box.

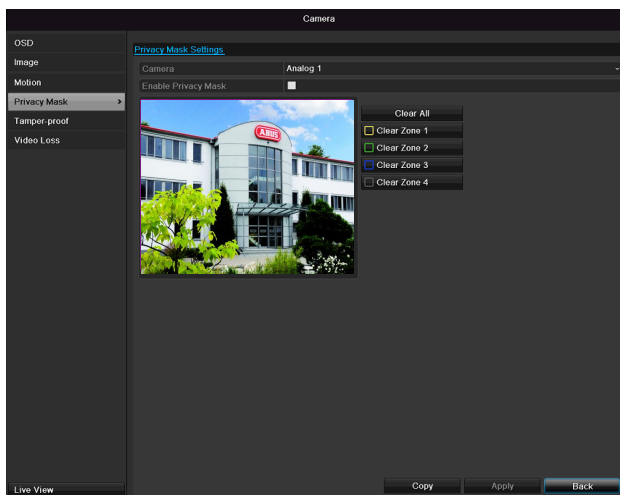


Parameter	Notification
Full Screen Monitoring	The camera is displayed as a full-screen picture in live cast
Audible Warning	The device emits a repeating tone
Send E-Mail	An e-mail is sent to a specific e-mail address (see page 86)

- Confirm the settings by clicking **Apply** and leave the menu with **OK**

Private Zone

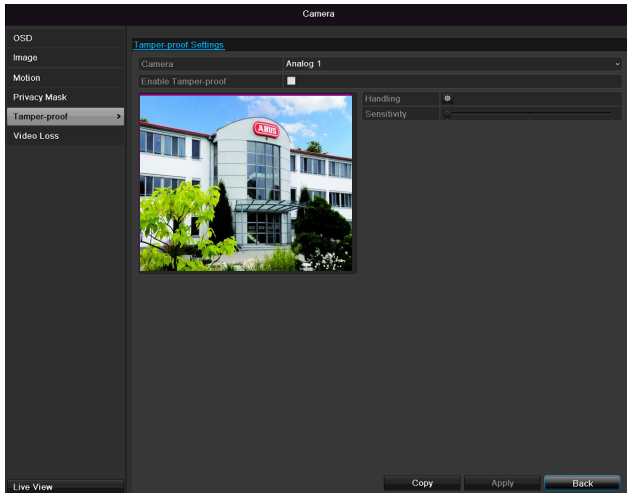
Select the camera channel under “Camera”. Select the checkbox for activating the private zone.



1. Select up to four private zones with the mouse.
2. Select **Copy** if the setting is to be applied for all cameras.
3. Confirm the settings by clicking **Apply** and exit the menu with **OK**.

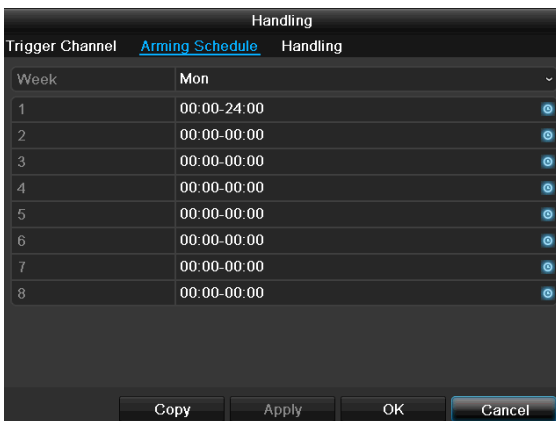
Tamper monitoring

Select the camera channel under “Camera”.
Select the checkbox for activating tamper monitoring.



Armin Schedule

Select the TAB **Arming Schedule**.
Here you set the times when the reactions in the TAB **Reaction** are triggered.



1. Select the day and enter the schedule.

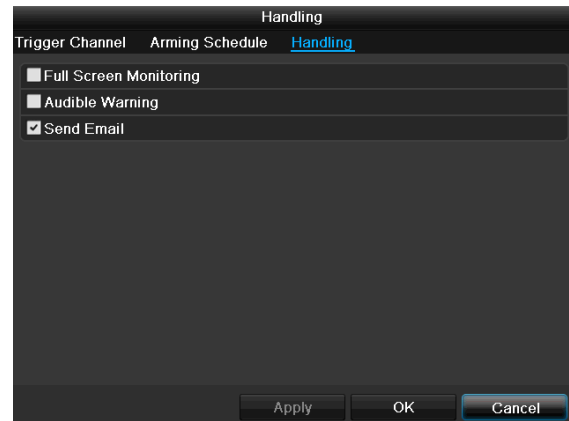
Note

You can define up to 8 time periods (each from 00:00 to 00:00). The times in the individual periods must not overlap.

2. Select whether the settings should be applied to all days of the week with using **Copy**.
3. Confirm the settings by clicking **Apply** and leave the menu with **OK**.

Handling

Click on the TAB **Handling**.
Here you can configure the behavior of the recorder during a detected event (for example: motion got detected) by clicking the respective check box.

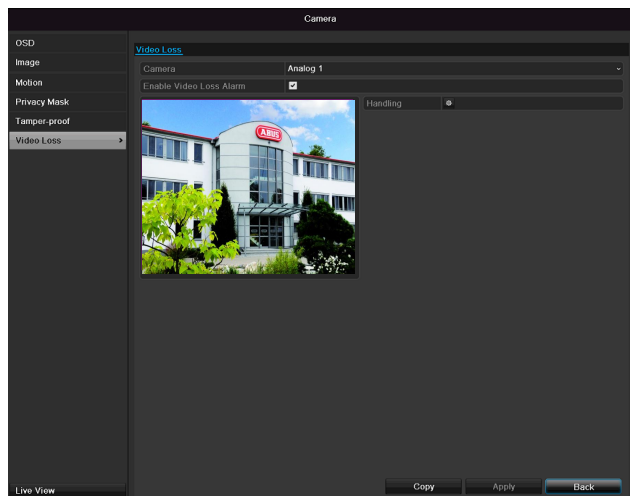


Parameter	Notification
Full Screen Monitoring	The camera is displayed as a full-screen picture in live cast
Audible Warning	The device emits a repeating tone
Send E-Mail	An e-mail is sent to a specific e-mail address (see page 86)

- Confirm the settings by clicking **Apply** and leave the menu with **OK**

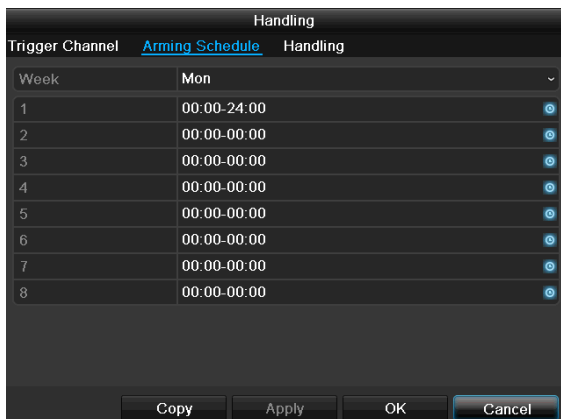
Video signal loss

Select the camera channel under “Camera”.
Set the checkmark for the alarm in the event of a “Video Loss”.



Armin Schedule

Select the TAB **Arming Schedule**.
Here you set the times when the reactions in the TAB **Reaction** are triggered.



1. Select the day and enter the schedule.



Note

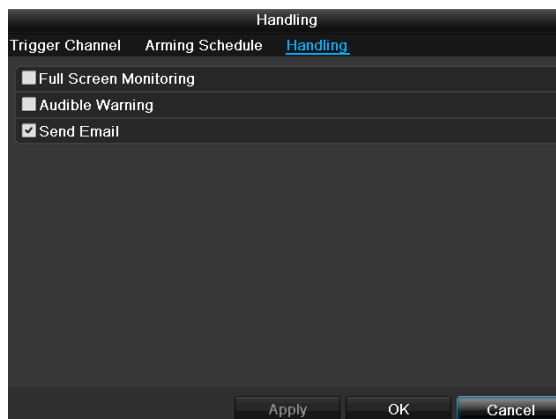
You can define up to 8 time periods (each from 00:00 to 00:00). The times in the individual periods must not overlap.

2. Select whether the settings should be applied to all days of the week with using **Copy**.
3. Confirm the settings by clicking **Apply** and leave the menu with **OK**.

Handling

Click on the TAB **Handling**.

Here you can configure the behavior of the recorder during a detected event (for example: motion got detected) by clicking the respective check box.



Parameter	Notification
Full Screen Monitoring	The camera is displayed as a full-screen picture in live cast
Audible Warning	The device emits a repeating tone
Send E-Mail	An e-mail is sent to a specific e-mail address (see page 86)

- Confirm the settings by clicking **Apply** and leave the menu with **OK**

Record

Setting up

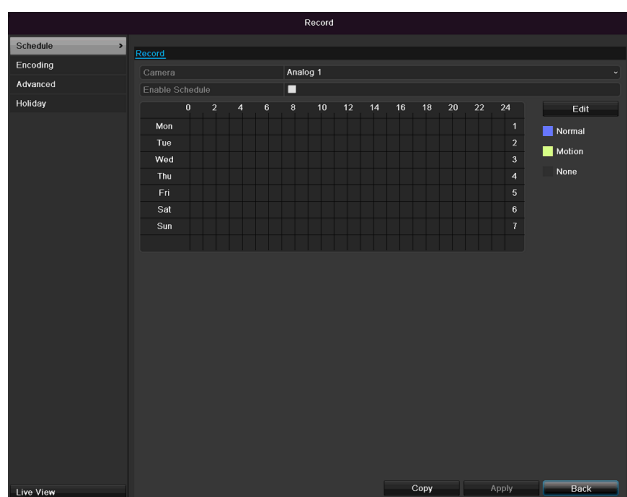
Open the main menu and click on record:

Schedule

The schedule is used to specify the recording times and triggers (recording type) for the cameras. Click on the “Schedule” tab:

i Note

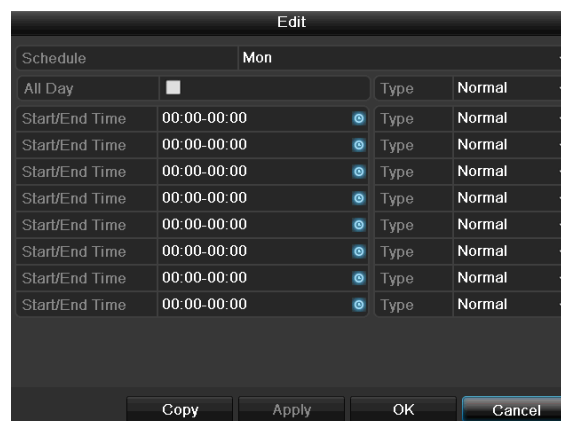
Because there is no difference between the settings for the TABs record and instant image, these are only listed once.



In the OSD, the hours of the respective days are listed from left to right (the days are listed from top to bottom). A colour key is shown underneath the days (i.e. the recording periods in the schedule are shown in colour according to the trigger (recording types)).

Colour symbol	Key
Blue	Normal recording: Period in hours
Yellow	Motion detection
Light blue	Motion detection and alarm
Red	Alarm
Grey	No selection
Brown	Motion or alarm

- Select the camera and click on the check box **Enable Schedule**.
- Click on **Edit** to specify the type and duration of the time plan



1. Define the day to be set in the pull-down menu at ‘Schedule’.
2. Activate/deactivate ‘All day’. If the full day is active, no definite times can be entered as the setting is now valid for the whole day.
3. To make specific time settings, deactivate the “All Day” box.

i Application example

Recording should run from 11:00 to 07:00. 2 time zones must be set up for this:

1. 11:00 AM - 24:00PM
2. 00:00 AM - 7:00 AM

4. Specify the recording type in the drop-down menu:
 - Time
 - Motion detection
 - Alarm
 - Motion detection or alarm
 - Motion detection and alarm
5. When making a specific time setting, you can define up to 8 time periods (each from 00:00 to 24:00). The times in the individual periods must not overlap.

i Note

The “Time” recording type defines the time window where a recording is made.

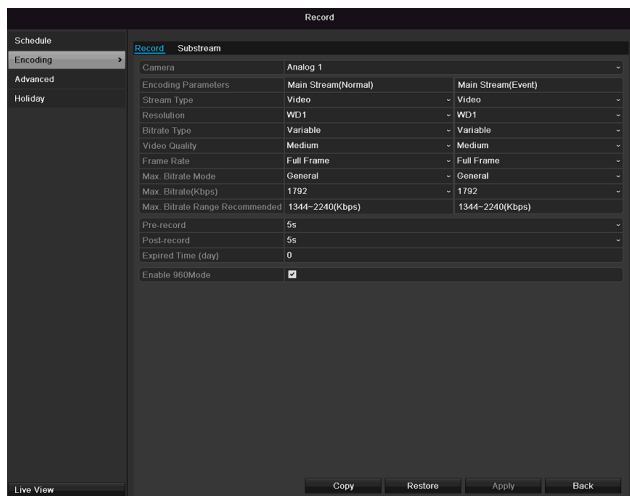
The other events (e.g. motion detection and/or alarm) only trigger the recording after the specific event has occurred.

- At **Copy** you can take on this setting for other days or the whole week.
6. Finalize your settings in the record screen with **Apply** and then **OK**.

Encoding

Record

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

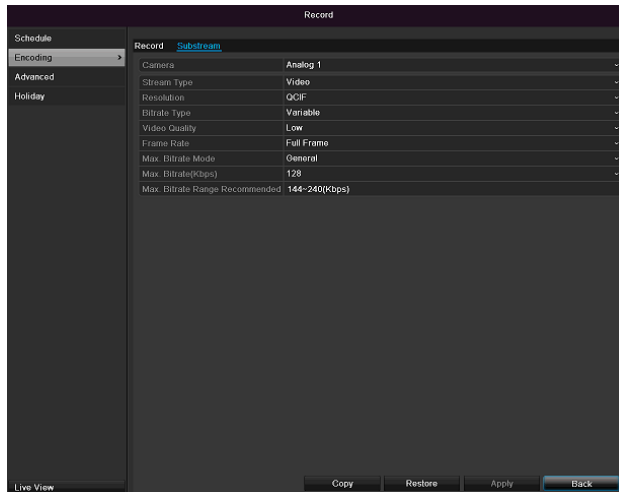


The following setting options are available in this sub-menu:

Camera	Camera to be set
Encoding Parameter	Stream to be set
Stream Type	Predefined video stream
Resolution	Auto, WD1 (960x480) 4CIF (704x576), 2CIF (704 x 288), CIF (352x288), QCIF (176x144)
Bit rate	Select a variable or constant bit rate
Video Quality	There are various quality levels: +++ : medium quality +++++ : high quality
Frame rate	Setting for the stream frame rate
Max. bit rate mode	Select the mode for setting the bit rate User def. (32 – 3072)
Max. bit rate (kbps)	Setting for the maximum bit rate
Recommended max. bit rate	Recommended bit rate depending on the set resolution, frame rate, etc.
Lead time	Recording period before an alarm (in seconds)
Overrun time	Recording period after an alarm (in seconds)
Mark elapsed time	Setting for the longest retention time for recorded files.
Activate 960 mode	Activated: Recording with WD1 resolution possible.

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

TAB Substream

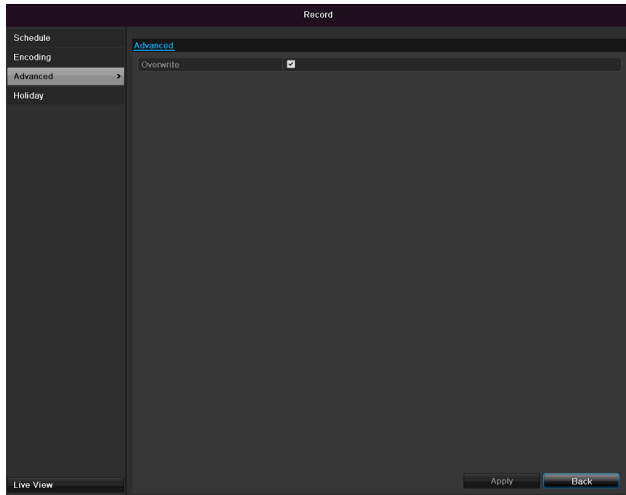


The following parameters can be set:

Camera	Camera to be set
Stream Type	Predefined video stream
Resolution	Auto, 4CIF (704x576), CIF (352x288), QCIF (176x144)
Bit Rate Type	Select a variable or constant bit rate
Video Quality	There are various quality levels: +++ : medium quality +++++ : high quality
Frame rate	Setting for the stream frame rate
Max. bit rate mode	General, user def. (32 – 3072)
Max. bit rate (kbps)	Display of the maximum bit rate
Recommended max. bit rate	192~320 (kbps)

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

Advanced settings

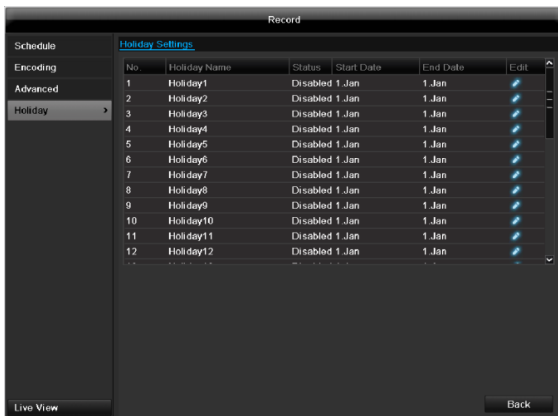


Holiday Name	Manual name entry of the vacation or holiday
Enable	Activate or deactivate the set vacation
Mode	According to date / week / month
Start Date	Selection of start date / start time
End Date	Selection of end date / end time

Confirm your settings with **Apply** and **OK**.

Overwrite	You can specify whether older recordings are deleted when the HDD memory is full
-----------	--

Holidays



In this sub-menu, 32 different recording settings for vacations or public holidays can be applied.

To apply these settings click on the "Edit" symbol:



HDD

HDDs

Note

The device can manage one 2.5" SATA hard disk drive.

Each of the installed HDDs must be initialised before the device can be used for recording. The device only detects the HDD and its assignment after initialisation has been made.



Warning

All data is deleted from the HDD during initialisation.

Ensure a data backup has been made in good time beforehand.

Installing the HDD

1. Disconnect the device from the mains power and open the cover.
2. Observe the applicable ESD guidelines when handling electronic devices and ensure they are earthed.
3. Do not open the device in rooms with carpets or other surfaces that can become electro statically charged.
4. Avoid bodily contact with all components on the PCB.



Warning

If you have questions regarding the information or cannot find the information you need, please contact your maintenance specialist.

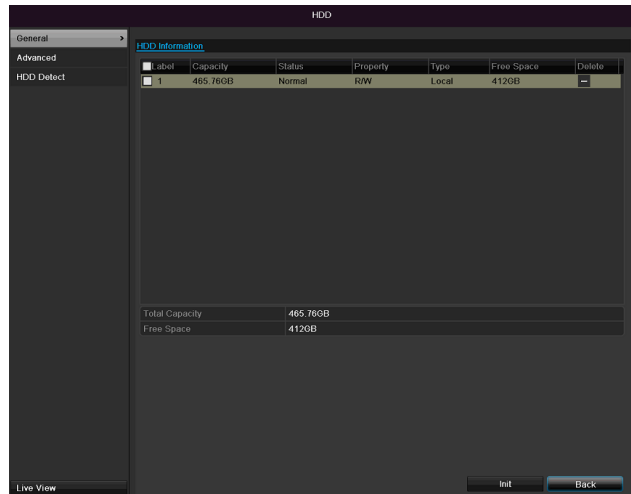
5. Install the HDD and then connect it.
6. Reattach the cover and connect the device to the mains power supply.

Note

If the initialised HDD is not displayed, check the connections

Click on "HDD" in the menu to define settings relating to hard disc administration

HDD Management parameters



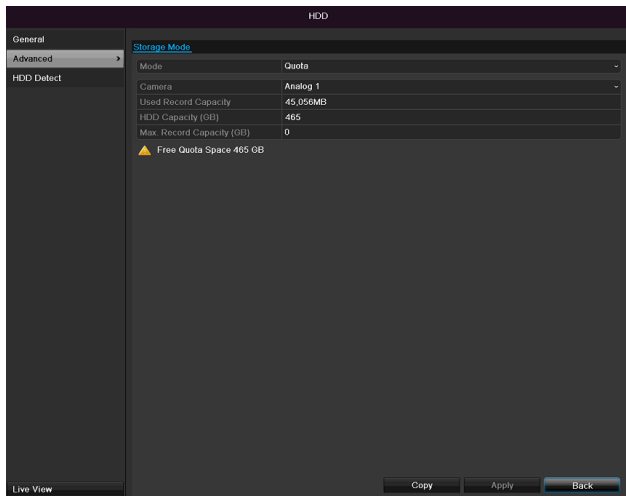
HDD information	
No.	Shows the internal connection number
Capacity	HDD capacity (in GB)
Status	Shows the current status of the HDD: Not initialised Normal Error Standby
Features	<ul style="list-style-type: none"> • Read-only: Read-only protection • R/W: Read and write
Type	Local: Device HDD NFS: Network HDD If possible, avoid using NFS storage due to compatibility problems that may occur.
Free Space	Shows the approximate free memory for recordings
Delete	Remove the hard drive

1. Select the HDD by ticking the corresponding box.
2. Start the process by clicking on **Init**.
3. Confirm the prompt by pressing **OK**.
4. The status bar shows the progress of the initialisation.
5. Nach Beendigung des Vorgangs erscheint die Festplatte.

HDD settings of the cameras

Click on the “Advanced” submenu

Mode: Storage

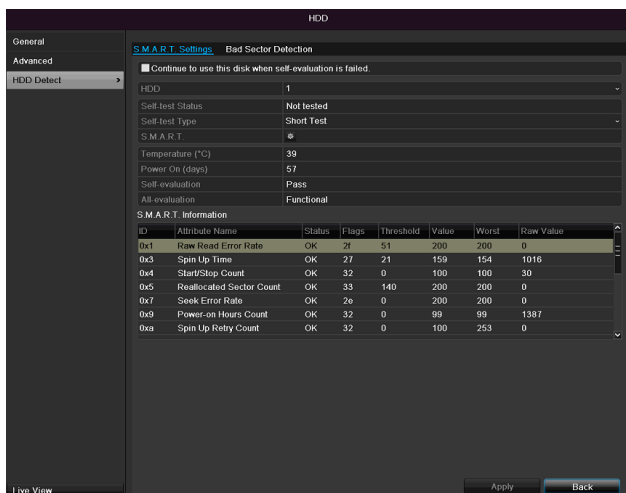


- Camera
- Selection of the camera channel for processing.
- Used Record Capacity
- File size of a recording file
- HDD capacity (GB)
- HDD capacity (in GB)
- Max. capacity (GB) for recordings
- Specify the maximum recording size on the hard disk drive for each camera.

1. Select **Copy** if the setting is to be applied for all cameras.
2. Confirm the settings by clicking **Apply** and exit the menu with **OK**.
3. Click **Apply** and confirm the restart in the next window with **OK**.

S.M.A.R.T.

S.M.A.R.T. means **Self-Monitoring Analysis and Reporting Technology**. Click on the “S.M.A.R.T.” submenu.



This information helps to recognise hard disc errors. For this reason, do not deactivate this feature if possible.



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 the self-test. Short Test / Expanded Test / Transport Test
S.M.A.R.T	Click on the icon to start the self-test
Temperature (°C)	Display the HDD temperature
Switching on (Days)	Display the operating days of the hard disk drive
Self-evaluation	Status display of the self-evaluation
Complete evaluation	Status display of the evaluation

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



Important:

If only one HDD is installed and this is set to “Read-only”, then the device cannot make recordings.

Checking the HDD status

The status of each HDD can be checked in the “Maintenance” menu. S.M.A.R.T. information (Self-Monitoring, Analysis and Reporting Technology) is stored in the log data.

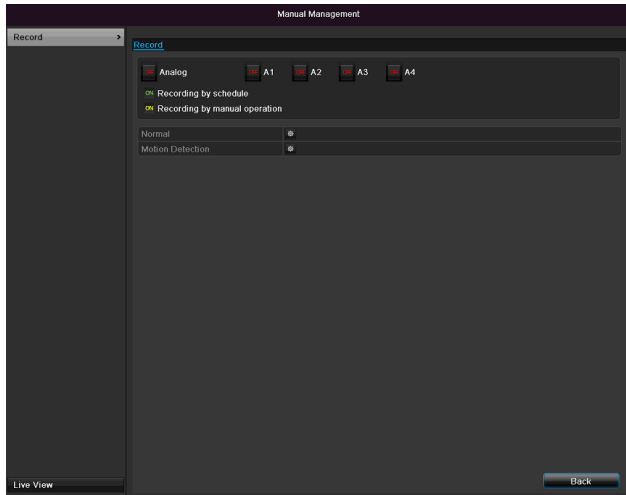
- Call up the log file and search according to the information/S.M.A.R.T. HDD (see page **Fehler! Textmarke nicht definiert.**)
- You can specify alarms to inform you of HDD errors.
- To do this, call “Warning” in the “Settings” menu.

Panic recording

Recording

Press the REC button or navigate to **Panic Recording** in the main menu to start manual picture/video recording.

Click on the “Recording” submenu.

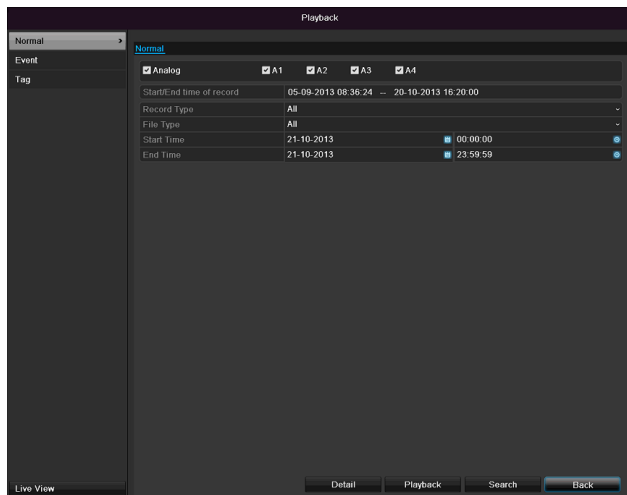


Analog	<p>Select the settings for all cameras</p> <p>Click “Off” or “On” to change the settings.</p> <p>On, green: Recording according to schedule,</p> <p>On, yellow: Recording with manual operation</p> <p>Off, red: No recording.</p>
Duration	<p>Click on permanent recording to activate all channels for the whole day.</p> <p>Click “Yes” to confirm your selection.</p>
Motion detection	<p>Click the symbol to activate motion detection for all channels for the whole day.</p> <p>Click “Yes” to confirm your selection.</p>

Playback

Press **Configuration** in the main menu and then **Playback** to search for video recordings after an event or a marking, or to view your saved images.

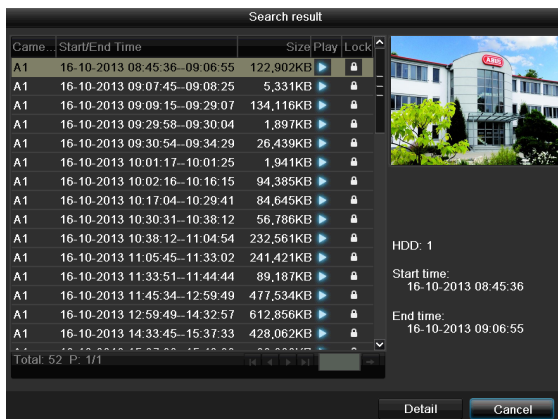
Continuous Recording



The following settings are available:

A1 - A4	Camera to be set
Record Type	Schedule, motion detection, alarm or motion detection and/or alarm, manual recording, all
File Type	Locked, unlocked, all
Start Time	Enter the date and time
End Time	Enter the date and time

- Click on **Search** to search for recordings with the corresponding settings. The results are then shown:



- Select the recording by clicking on the line and then on "Play"-symbol.

Note

You can return to events search at any time in the playback mode by performing a right click and selecting 'Video Search'.

Note

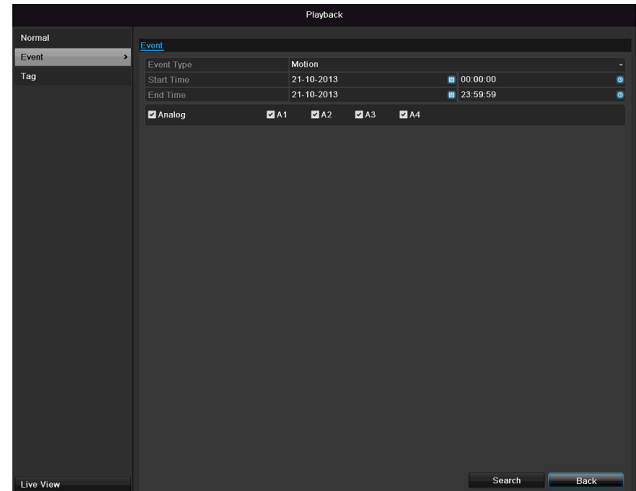
The sub-menus 'Tag' and 'Picture' are almost identical with the menu described above and are there-

fore not listed separately.

In the sub-menu 'Tag', searching does not take place according to recording type, rather according to identification or a keyword of the markings' name

Event

Please click on the TAB „Event“.



A list of all event types is displayed.

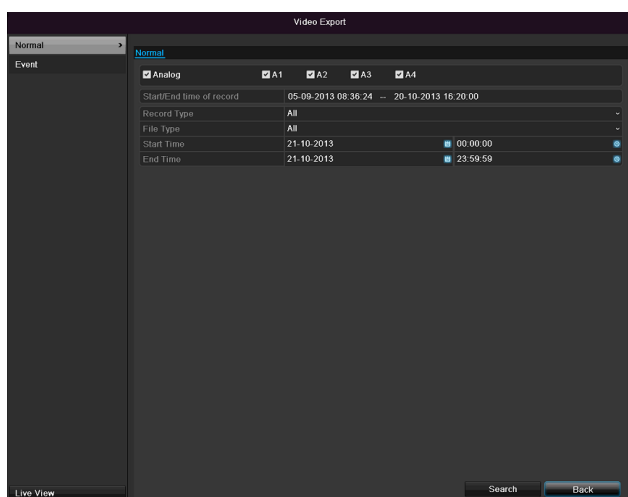
For "Event Type" select whether a search is to be made for recordings with motion (motion detection).

Select one or more cameras by activating the checkbox. Click on **Search**.

Select one or more event markings from the list which appears. Click on **Details** to obtain more information about the recordings.

Video Export

Duration



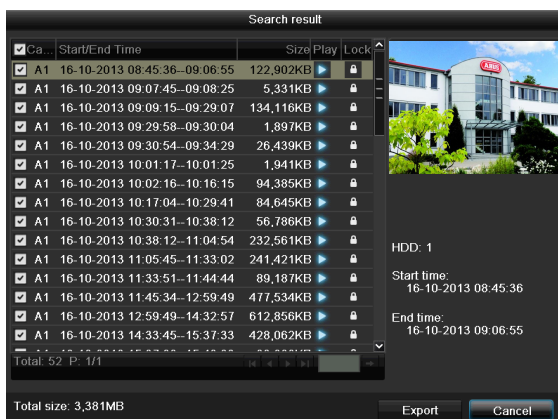
Note

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

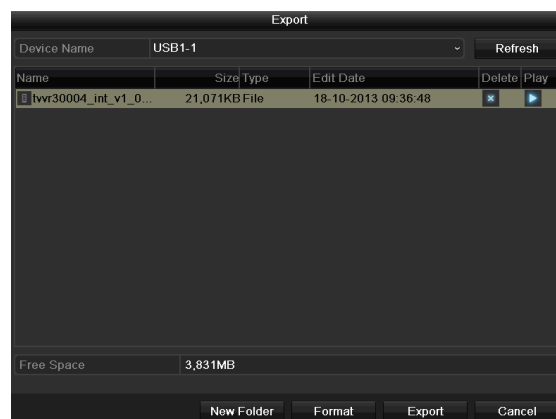
- USB media
- USB HDD
- DVD writer

- When “Quick export” is selected, all recordings of the selected time span are exported. Please note that not more than 24 hours can be exported.

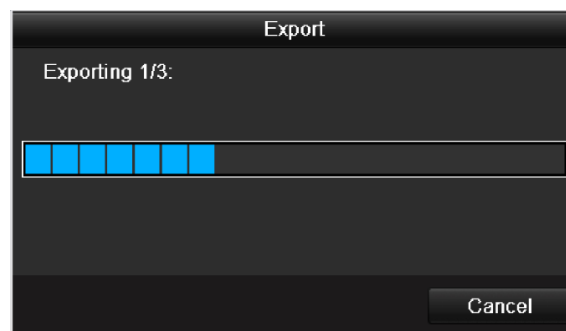
1. Enter the parameters.
2. Click on “Details” to limit the search



- The file size of the individual recording and the total size of all found recordings are displayed.
 - By clicking the “Playback” symbol you can view the respective recording.
 - To block or unblock a file click on the “Lock” symbol.
3. Click on **Export** to access the export screen.



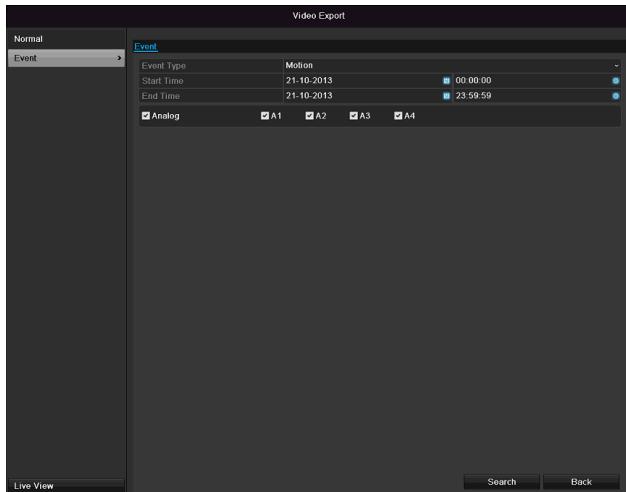
1. Select the connected medium used for data storage from the drop-down menu.
2. If the medium is not displayed, click on **Refresh**.
 - If the medium is still not displayed, disconnect it from the device and reconnect the medium again. See also the manufacturer’s specifications.
3. Click on **Export** to start the export process. The progress of the export process is then displayed.



Note

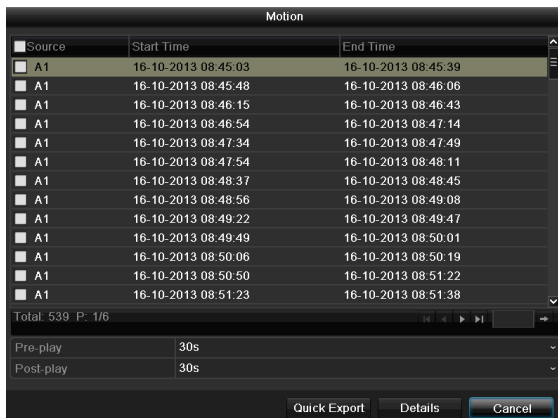
After the storage process is completed, the data on the medium can be selected and played on the player (which was also backed up). In this way, you can check whether the export has been made successfully.

Event (event type 'Motion')



Define the time span of the recording being searched for by means of the selection fields at "Start time" and "End time". Select the camera by activating or deactivating the check box and click **Search**.

For both types of event, the following window appears after activating the **Search** button:



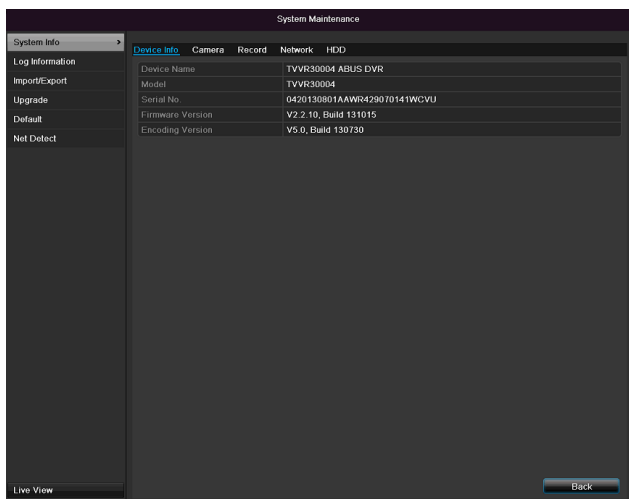
Select the files to be exported by activating or deactivating the check box. You can set the pre-alarm and post-alarm time at "Pre-play" or "Post-play". In this way you can define the length of your export video. Click on **Details** to view the selected video. For more exact information on the Details window, see **DURATION** (p. Fehler! Textmarke nicht definiert.).

Note
The "Pre-play" recordings can only be viewed when recording has been carried out before the alarm.

Note
The sub-menus "Normal" and "Picture" are similar and are therefore not listed separately.

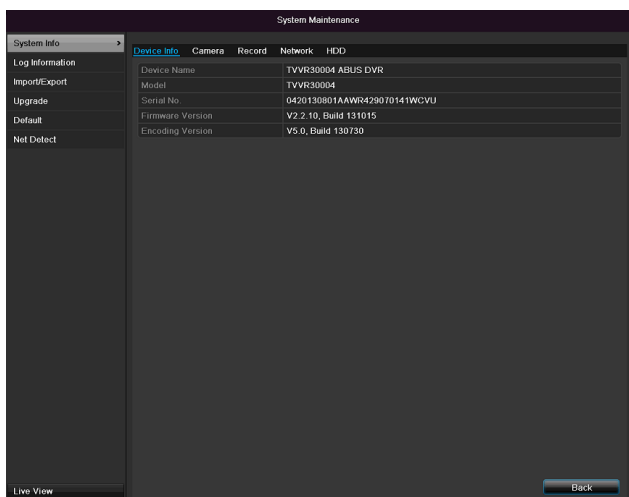
Maintenance

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



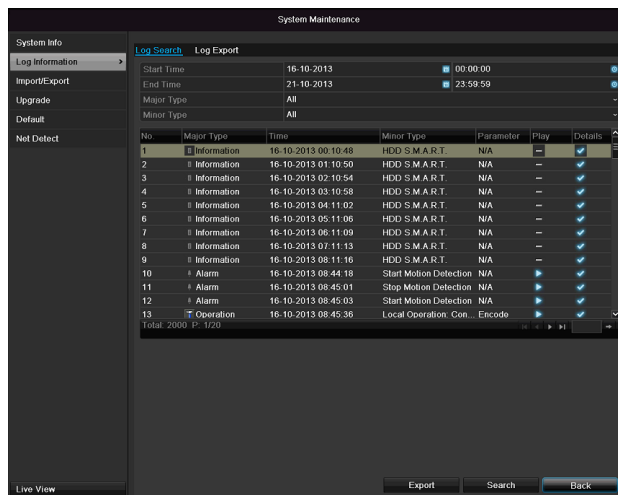
Menu	Setting	P.
System Info	Device information (serial number, firmware status etc.)	103
Log Search	A search of recordings or information (S.M.A.R.T. HDD status) can be made in the log file according to certain criteria (alarms, exceptions, operation or information).	103
Import/Export	Used to export or import the settings	104
Upgrade	Carries out a firmware upgrade	104
Default	System reset	105
Network	Displays the transmission and reception rate of the recorder	105

System Info



Note
The information menu shows the technical data for the device and information on the various settings of the cameras, recording etc. This can be useful for support queries, for example.

Log Search



Note
An event search can be made according to the following main types, events and parameters:

- All
- Alarm
- Exception
- Operation
- Information

Filter1	Filter2
All	-
Alarm	<ul style="list-style-type: none"> • All • Alarm Input/Output • Start/Stop Motion Detection • Start/Stop Tamper-proof
Exception	<ul style="list-style-type: none"> • All • Video Loss Signal • Video Signal Exception • Illegal Login • HDD Full • HDD Error • IP Conflicted • Network Disconnected • Exception recording • Video input/output signal not equal • Recorder buffer overflow

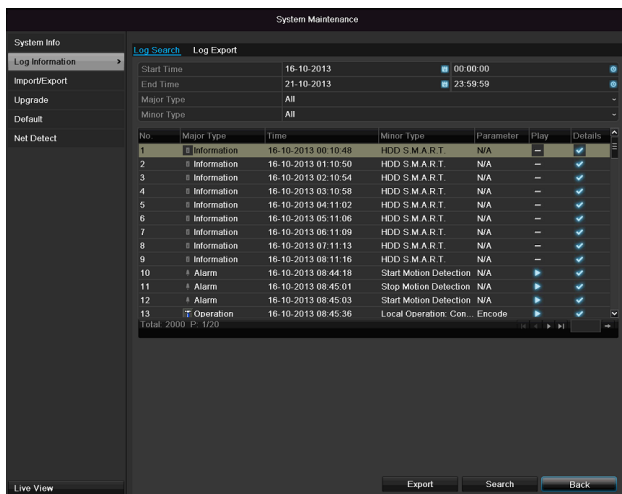
Operation	<ul style="list-style-type: none"> All Power On Abnormal Shutdown Start/Stop Audio Local Operation, e.g.: Shutdown/Reboot/Login/Logout/Configure Parameters/Upgrade/Start Recording Remote Operation, e.g.: Export Record File/Alarm Arming/ ...
Information	<ul style="list-style-type: none"> All Local HDD Information HDD S.M.A.R.T. Start/Stop Recording Start/Stop Capture Delete Expired Record NetHDD Information

- Click on **Export** to back up the log file on a USB medium.

Import / Export



- Select the event you wish to search for in the log, then select the sub-parameter.
- Enter the date and time under “Start Time” and “End Time”, then click on **Search**.
- The results are then displayed:



- The pages are changed using the navigation bar:



(1) (2) (3) (4) (5) (6)

Note

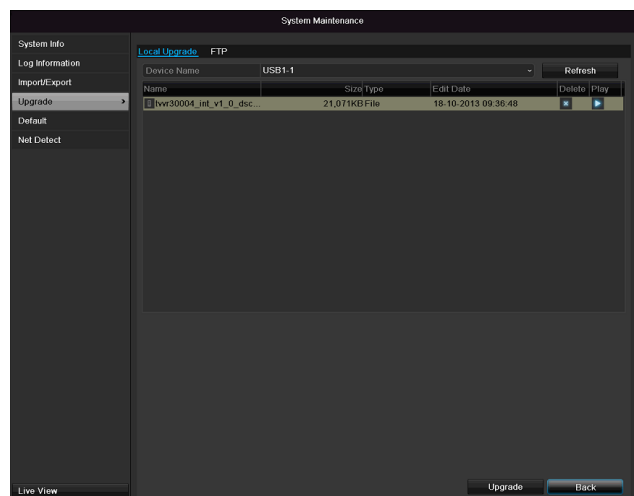
To scroll forwards or backwards press (3) or (2). To jump to the first or last page press (4) or (1). To go to a specific page number enter it in (5) and confirm by clicking (6).

- Click on **Details** to see more detailed information.
- Click on **Play** to start the recording for the event, when necessary.

Note

The configuration data contains all settings made on the device since the start of operation. This data can be saved on a USB medium. You can then configure another device identically, for example.

Upgrade



Note

A device upgrade can be made from a USB device or over the network via FTP.

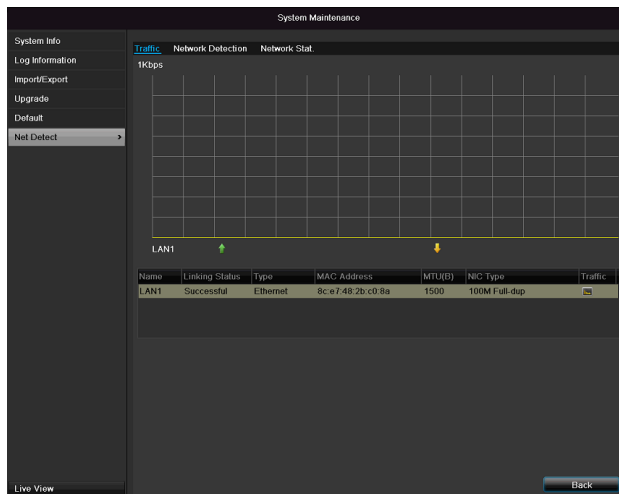
- Copy the upgrade file to the main directory of a USB stick.
- Connect the USB stick to a USB port on the device.

1. Select the USB port (click on **Refresh**, if necessary).
2. Select the upgrade file and click on **Upgrade**.
3. Wait until the device reboots.
4. Check the firmware status in the “Maintenance” menu under “System Info”.

Note

Upgrades via FTP are made in the same way as detailed above.
 The PC must be in the same local network.
 Set up a PC as an FTP server.
 Enter the IP address of the FTP server .

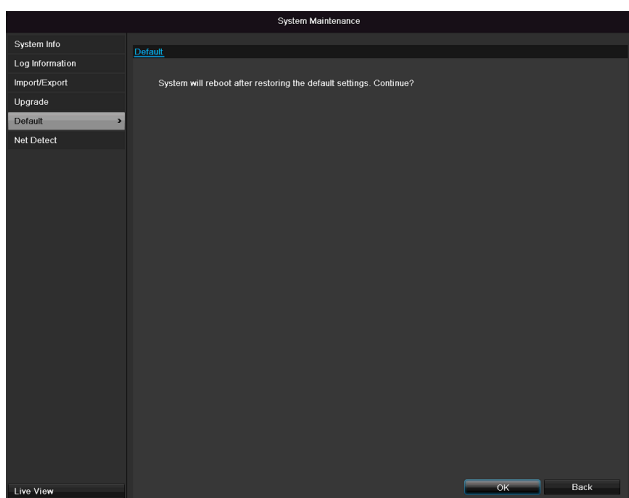
Network



Note

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

Default



Note

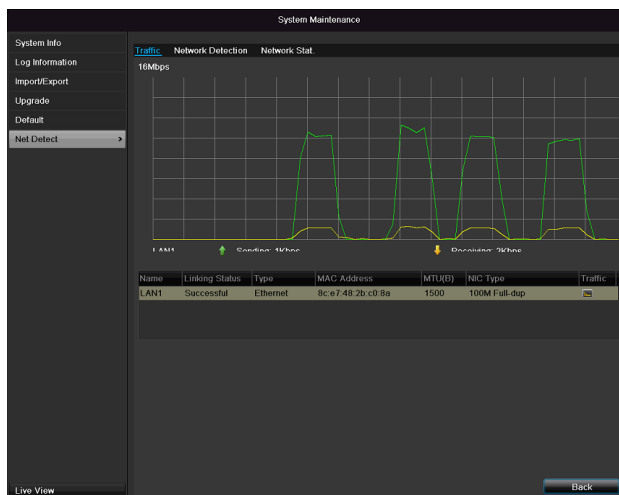
In this process, the device is reset to the factory default settings.



Warning

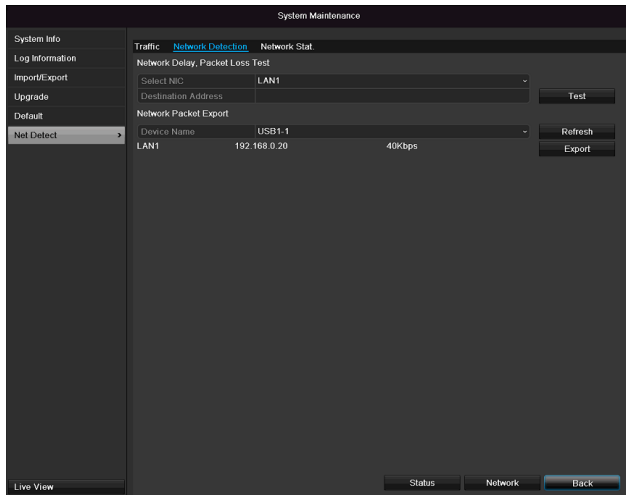
All settings made since the start of operation are deleted (cameras, recording settings, alarms etc.)!
Avoid data loss by backing up the settings in advance. These can be imported again following the system reset.

TAB network load



The amount of received and sent data is displayed graphically.
 Depending on the network settings, the status and information for one or two network connections is shown in the field underneath the graph.

TAB Network Detection



In “Destination Address”, 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 press **Test**.

Information on two parameters appears:

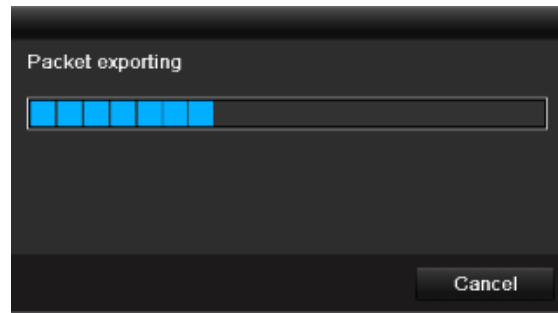
Parameter	Setting
Average delay	The time the pinged device needs to reply.
Packet loss Rate:	Displays the percentage of packets that were not transmitted

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 cables are correct and not damaged.
The higher the packet loss rate, the poorer the connection between the pinged device and recorder.

For “Network Packet Export”, you can export the settings of the individual connections or – depending on the setting – the connection.

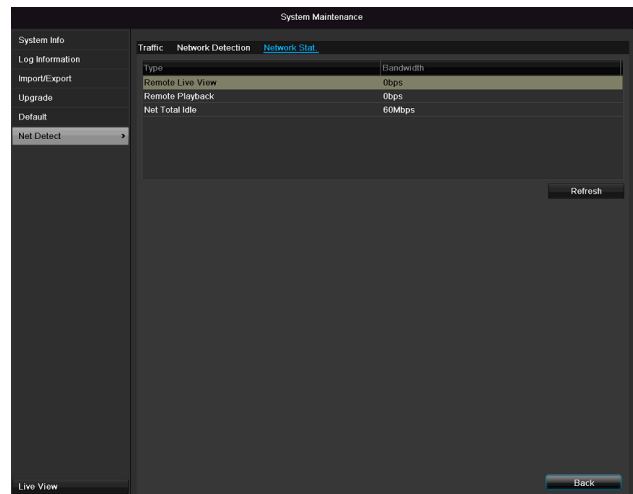
1. For “Device Name”, select a storage medium to save the settings to.
2. Click **Export**.



After the progress display finishes and initialization is successful, an information window appears. Close it with **OK**.

- Click **Status** to display the status of the LAN connections (connected/not connected).
- Click **Network** to change your network settings (see p.84).

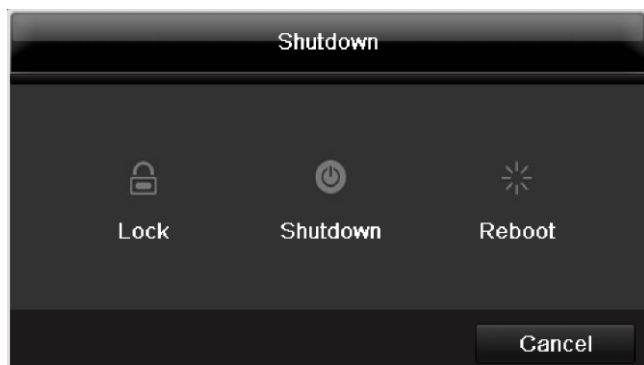
TAB Network Stat.



Displays all used in- and outgoing bandwidth.

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

Shutdown



i Note

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

Display



Note

See description on page 75.

Settings: Recording



Note

See description on page 94.

Settings: Network



Note

See description on page 84.

Troubleshooting

Before calling the Service department, read the following information to determine the possible cause of a malfunction.

Malfunction	Cause	Solution
No power	Mains cable not connected	Connect the mains cable securely to the socket
	Power switch set to OFF	Turn the power switch to ON
	No current in the power socket	Use another device on the socket, where necessary
No image	Screen not set for reception	Set the correct video input mode until an image from the recorder appears
	Video cable not connected properly	Connect the video cable securely
	Connected modem is switched off	Switch on the monitor
No sound	Audio cables not connected properly	Connect the audio cables securely
	Devices connected over the audio cables are not switched on	Switch on the devices connected over the audio cables
	Audio connection cable is damaged	Replace the cable
HDD is not working	Connection cables not connected properly	Connect the cables securely
	HDD defective or not system-compatible	Replace with a recommended HDD
USB port not working	Device not supported	Connect a compatible USB medium (USB 2.0)
	USB hub is in use	Connect the USB medium directly
Network access not possible	Network cable connections are loose	Connect the network cable
	Network settings are incorrect (DHCP, IP address etc.)	Check the network configuration and correct it, if necessary (see page 84).
Remote control is not working	Batteries inserted with the wrong polarity or are empty	Replace the batteries. To control the device with the remote control, point it at the remote control sensor on the device
	Remote control too far away from the recorder	Use the remote controller within 7 metres from the device
	Signal blocked by obstruction between the remote control and recorder	Remove the obstruction
	Lighting too bright or fluorescent tubes in use?	Switch off strong fluorescent lighting in the immediate vicinity
Recording not possible	No HDD or HDD is not initialised	Install and initialise the HDD
Sudden deactivation of the device	Temperature inside the device is too high	Clean the device and remove any obstructions from the ventilation area

Device cleaning and care

Note

- Your device requires no maintenance.
- Protect the device from dust, dirt and moisture.

Technical data

Subject is to alterations and errors. The dimensions are approximate values.

ABUS digital recorder	TVVR30004
Video compression	H.264
Camera inputs	4
Monitor outputs	Monitor: 1 x BNC (1.0 V p-p, 75 Ω), 1 x VGA
Operating mode	Triplex
Resolution (live view)	VGA: 1080P: 1920*1080/60 Hz, 1280*1024/60 Hz, 720P: 1280*720/60 Hz, 1024*768/60 Hz BNC Output: PAL: 704x576, NTSC: 704x480
Resolution @ frame rate per camera (recording)	WD1, 4CIF, 2CIF, CIF, QCIF @ 25 fps
Total frame rate	100 fps
Compression levels	6
Post-alarm memory	0–30 sec. / 5–900 sec.
Storage medium	1 x 2.5" SATA HDD
Data backup	1 x USB 2.0
Views	1 / 2 / 4
Recording modes	Manual, schedule, motion detection
Search modes	By event, date and time, S.M.A.R.T.
User levels	2 (max. 31 users)
Network access	1 x RJ45 10/100 Mbps
Parallel network access	128 camera connections
Network functions	Live view, playback, data export
DDNS	√
NTP	√
Alarms	Acoustic warning, OSD signal, e-mail
Control	USB mouse
OSD languages	German, English, French, Dutch, Danish, Italian, Polish, Spanish, Swedish, Russian
Power supply	12 V DC, 1.5 A, 50~60 Hz
Power consumption	<13 W (without HDD)
Operating temperature	-10 °C ~ +55 °C
Dimensions (W x H x D)	200 x 45 x 200 mm
Weight	≤ 0.8 kg (without HDD)
Certifications	CE

HDD storage capacity

In addition to the actual storage capacity of the installed HDD, the required storage space for recording and surveillance depends on the set resolution and frame rate of the recording.

On the included CD you can find a program in order to calculate the required amount of memory. In addition you find this software for download on our homepage.

Overview monitor output combination

It is possible to connect a SPOT monitor. Use the table below to find out what combinations are possible. A tick indicates that the combination is possible, a cross shows that it is not.

VGA + CVBS	VGA only	CVBS only
✓	✓	✓

Disposal

Information on the EU directive on waste electrical and electronic equipment

To protect the environment, do not dispose of the device with domestic waste at the end of its service life. It can be disposed of at one of the appropriate collection points in your country. Please obey your local regulations when disposing of material.



Dispose of the device in accordance with EU directive 2002/96/EC – WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the department of your local authority which is responsible for waste disposal. Used equipment can be disposed of, for example, by your local or municipal authority, the local waste disposal company or your dealer.

Information on handling batteries

- Always insert batteries with the correct polarity. Never attempt to recharge the batteries supplied and do not throw them into naked flames under any circumstances. Do not use different batteries at the same time (old and new, alkaline and zinc-carbon etc.). Remove the batteries if the device is not used for a long period of time. If used improperly, there is a risk of explosion and leaking batteries!
- Take environmental protection into account – used batteries should not be disposed of in domestic waste! They must be taken to a collection point for used batteries.
- Make sure that batteries are kept away from small children. Children may put batteries in their mouths and swallow them. This can cause serious harm to their health. If this happens, consult a doctor immediately.
- Do not charge normal batteries, heat them up or throw them into naked flames (they may explode).

- Change low batteries in good time.
- Always change all the batteries at the same time and use batteries of the same type.



Important

- Leaky or damaged batteries can cause chemical burns on contact with the skin.
- ▶ In this case, wear protective gloves.
 - ▶ Clean the battery compartment with a dry cloth.

Important information on disposing of batteries

Your product uses batteries which are subject to the European directive 2006/66/EC and may not be disposed of with domestic waste.

Find out about the regulations for the separate collection of batteries which apply in your country.

Proper disposal of batteries helps prevent harm to health and the environment.

Batteries that contain harmful chemicals are labelled with these signs:



Pb = battery contains lead

Cd = battery contains cadmium

Hg = battery contains mercury

Information on the European RoHS directive

The device complies with the RoHS directive.

Compliance with the RoHS directive means that the product or component does not contain more than the following maximum concentrations of the following substances 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

Overview of specialist terms

1080i

HDTV image signal with 1080 pixels and interlaced display.

16:9

Cinematographic aspect ratio on widescreen displays.

720p

HDTV image signal with 1280 x 720 pixels and progressive display.

CIF

Common Intermediate Format

Originally planned for converting PAL to the NTSC standard. CIF corresponds to a video resolution of 352 x 288 pixels (2CIF = 704 x 288 pixels; 4CIF = 704 x 576 pixels).

CINCH

Socket type used for analogue audio or CVBS video signals.

CVBS

Colour, Video, Blank and Sync – The simplest variation of video signals (also known as composite video). The image quality is comparatively low.

DDNS

Dynamic Domain Name System entry

Network service which provides and updates IP addresses of its clients in a database.

DHCP

Dynamic Host Configuration Protocol

Network protocol which allows the automatic connection of devices (clients) in existing networks. DHCP servers (e.g. Internet routers) automatically assign the IP address, network mask, gateway, DNS server and WINS server (when required). Only the automatic acquisition of IP addresses must be activated for the client in this case.

Domain

Name used for the identification of websites on the Internet (e.g. www.abus-sc.de).

Dual Stream

Dual stream is a video transmission method. A high-resolution recording and lower-resolution transmission are made over the network, for example. The main stream has a 4CIF resolution and the sub-stream has a CIF resolution.

DVR

Digital Video Recorder – A device used for recording different video and audio sources (analogue, digital). The data is compressed for recording and saved on hard disk drives (HDD).

H.264

(MPEG-4 AVC) – Standard method for the highly-efficient compression of video signals. Used on Blu-ray discs or video conference systems, for example.

HDD

Hard Disk Drive

Digital data storage on computers or DVRs.

GIGABYTE

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

HDVR

Hybrid DVR – DVR used for recording analogue cameras and network cameras.

http

Hypertext Transfer Protocol

Method for transmitting data across networks. Primarily used for displaying websites in a browser.

INTERLACED

Method for improving the picture quality of a video signal without consuming extra bandwidth (scan pattern on every second line).

IP address

An address in the computer network based on the Internet protocol. Allows different devices to identify themselves in a network so that they are accessed specifically.

JPEG

Compression method for photo images with minimal loss. Most digital cameras save photos in JPEG format.

MPEG

Moving Picture Experts Group – International standard for the compression of moving images. On some DVDs, the digital audio signals are compressed and recorded in this format.

NTP

Network Time Protocol

Method for synchronising the time across networks. SNTP (Simple Network Time Protocol) is also available, offering a simplified protocol.

NTSC

Standard television format in the USA. The method is different from the European PAL system in certain ways. A full-screen NTSC image is comprised of 480 visible lines and a total of 525 lines. 60 half-images are displayed per second. Compared to PAL, the system is more susceptible to colour errors.

PAL

Phase Alternating Line – European colour TV system. Uses 576 visible image lines. Together with the lines used for signal management, a full-screen image is comprised of 625 lines. 50 half-images are displayed per second. The phase position of the colour signal changes from line to line in the image.

PANEL

Interior of a flatscreen display (e.g. LCD or plasma panels).

PC

Personal Computer – Can be used as a remote site, either with the software supplied or over a browser.

Pixel

Short for “picture element”, the smallest unit for digital image transmission or display.

PIP

Picture in Picture – Where two signal sources are shown on the screen at the same time. The second signal source is stored above the first.

PPPoE

PPP over Ethernet (point-to-point protocol)

Network transmission method used for establishing a connection over dial-up lines. Used in ADSL connections, for example).

PROGRESSIVE

Method for displaying, storing or transmitting moving images in which all the lines of each frame are drawn in sequence. This is in contrast to the interlacing used in traditional television systems.

PTZ

Pan-Tilt-Zoom

Pan, tilt and zoom function on motor-driven cameras.

RESOLUTION

Normal PAL television systems show images in 576 lines, normally with 768 pixels. HDTV works with at least 1280 x 720 pixels.

SCREEN SIZE

Size of the display from the bottom-left corner to the top-right corner in inches or centimetres.

Browser

Program for viewing websites on the Internet.

USB

Universal Serial Bus

Serial bus connection, used for connecting media whilst in operation. Maximum data rate for USB 2.0: ca. 320 Mbit/s (ca. 40 MB/s).

VGA

Video Graphics Array – Standard interface for analogue video signals in PCs (primarily deals with RGB signals).

ZOLL (inches)

Typical unit of screen size. One inch is equivalent to 2.54 centimetres. The most common sizes of 16:9 displays are 26 inch (66 cm), 32 inch (81 cm), 37 inch (94 cm), 42 inch (106 cm), 50 inch (127 cm) and 65 inch (165 cm).

Internal HDD

The internal hard disk drive (HDD) is very sensitive. Operate the device according to the following instructions in order to avoid drive errors. Important recordings should be backed up on external media to avoid unexpected data loss.



Note

- Do not move the device during operation.
- Moisture inside the device can condense and lead to HDD malfunctions.
- When the device is turned on, never remove the mains plug from the socket or interrupt the power supply using the safety switch.
- Do not move the device immediately after switching it off. To move the device, carry out the following steps:
 1. Wait until OFF has been shown on the display for at least two minutes.
 2. Remove the mains plug from the socket.
 3. Move the device.
- Data on the HDD can be lost in the event of a power failure during operation. Use an uninterruptible power supply (UPS)!
- The HDD is very sensitive. Improper use or unsuitable surroundings can damage the HDD after some years of use. This may be indicated by the playback stopping unexpectedly or visible “mosaic” effects in the image. In some circumstances, there are no prior signs of a HDD malfunction.
- In the event of a malfunction, no recordings can be played. The HDD must be replaced in this case.

ABUS 4-channel digital recorder

TVVR30004

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