



SANTEC

USER MANUAL

SanStore HD-SDI hybrid digital recorder

Models:

SanStore-4HDX

SanStore-8HDX

SanStore-16HDXS



Dear customer,

Thank you for purchasing a high quality SANTEC device.

We recommend that you read this manual thoroughly before operating your new system for the first time. Please follow all instructions and observe the warnings contained in this manual.

Please contact your local dealer or SANTEC directly if you have any questions or if you wish to claim for a service or warranty.

You will find further information on our website:

www.santec-video.com

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1. General

Please read this user manual carefully before starting to operate this device. Please retain this user manual for future reference.

1.1 Safety instructions and precautions



Overcharge

Never expose the power socket or the power cord to electrical overcharge. This may lead to fire and life-threatening shocks.

Thunderstorms

If there is a thunderstorm or if the device has not been in use for a longer period of time, please always disconnect the device from the power source. Disconnect the power cord. This protects the device from lightning damages or overcharging.

Entry of liquids or items

Never poke with metallic items in the ventilation slots of the device. You may touch dangerous live power items which may lead to an electronic shock, a short circuit or fire.

1.2 CE compliance

This appliance complies with the CE guidelines.

If you require an EC Declaration of Conformity for this device, please send a request to: CE@santec-video.com

Attention:

Any changes or modifications to this appliance which have not been explicitly approved of by the respective regulatory authority, may lead to a prohibition of usage of this appliance.

Important: Legal note



Monitoring, recording and storage of video surveillance data (images, audio), is subject to strict legal regulations. Please respect the Data Privacy Act which applies to your country.

1.3 Important general notes

Please read the following instructions carefully.

1.3.1 Assembly and installation

- On-site installation should only be performed by qualified maintenance personnel and must meet local specifications and regulations.
- Never operate the equipment without the respective protective cover near water, in dusty rooms or extremely humid rooms. The equipment could be seriously damaged.
- The openings on the equipment are intended for ventilation purposes and protect from overheating. Never cover or close off these openings. Rack mounting is only permissible if sufficient ventilation can be ensured. Overheating may damage the equipment or result in fire due to short-circuit.
- Power cables and other cables should be run so as to avoid being stepped on or potential damage from falling objects. Damaged cables may result in short-circuit and equipment damage as well as potentially fatal electrical shock.
- When connecting the supply voltage please note correct polarity. Faulty connections may damage or destroy the equipment.
- Only use the power source specified on the nameplate. Please consult your electrician if you are unsure whether the power supply on site is appropriate. Only use the supplied power cables or power adapters or the specified recommended power supplies.

1.3.2 Maintenance and repair

- Shut off and unplug the equipment from the power receptacle prior to every cleaning. Only clean the equipment with a slightly dampened cloth. Do not use harsh cleaners or spray cans. Using harsh solvents such as thinner or petrol may damage the housing surface.
- Immediately shut off the equipment and promptly disconnect it from the operating voltage. The following damages must be handled by an authorized service centre:
 - Damage to the power supply cable
 - If a liquid spilled onto the equipment or an object penetrated the equipment
 - If the equipment was exposed to water or another liquid
 - If the equipment is not functioning properly despite observing the instructions in these operating instructions. Only the controls specified in these operating instructions may be adjusted. Incorrect settings to the other controls may damage the equipment.
 - If the equipment fell to the floor or the housing was damaged
 - If the equipment performance is substantially the required performance
- Never attempt to maintain the equipment yourself, as this may expose you to hazardous voltages. Maintenance work should always be performed by qualified personnel only.



Attention:

Opening the appliance will result in loss of warranty. Do not try to repair the appliance yourself but contact your local distributor or specialist.

- For digital recorders, it is mainly the HDD which subject to natural attrition. HDD attrition may happen after approx. 8,000 to 10,000 hours of operating time which may lead to malfunctions. We thus recommend to replace the HDD in specific intervals in order to ensure a smooth operation of the appliance. Moreover, we recommend to clean the built-in fan regularly from dust and dirt to avoid interferences caused by overheating. Please do not hesitate to contact us in case of further questions.



Attention: Attrition of mechanical parts

We explicitly point out that any type of recording device, no matter if it is an analogue or digital device, is subject to natural attrition. Every recording device contains mechanical parts which – like any other device – need to be maintained and checked regularly. This is particularly important for appliances which run non-stop.

1.3.3 Spare parts and accessories

- Only use auxiliary devices which are recommended by the manufacturer. Non-recommended devices may influence the functionality and may cause electric shocks or fire caused by short circuits.
- Only use spare parts which are recommended by the manufacturer or which have identical characteristics. Non-approved spare parts may cause harm to people (electric shock) and may damage the device (fire).

1.4 Items included in the delivery

- 1x SanStore-4HDX, SanStore-8HDX or SanStore-16HDXS
- 1x Power cord
- 1x AC adapter (power adapter)
- 1x USB mouse
- 1x CD (user manual, document on GPL licence)
- 1x Set brackets for 19" rack installation (only for SanStore-16HDXS)
- 1x Quick installation guide

1.5 Apps for Apple iPhone and Android smartphones

The SanStore recorders can also be accessed by using Apps which you can download from the respective App stores. Further information is available from the respective App provider.

Please also read chapter 8.2 “Remote access via smartphones (Android, iOS)”.



1.6 General note

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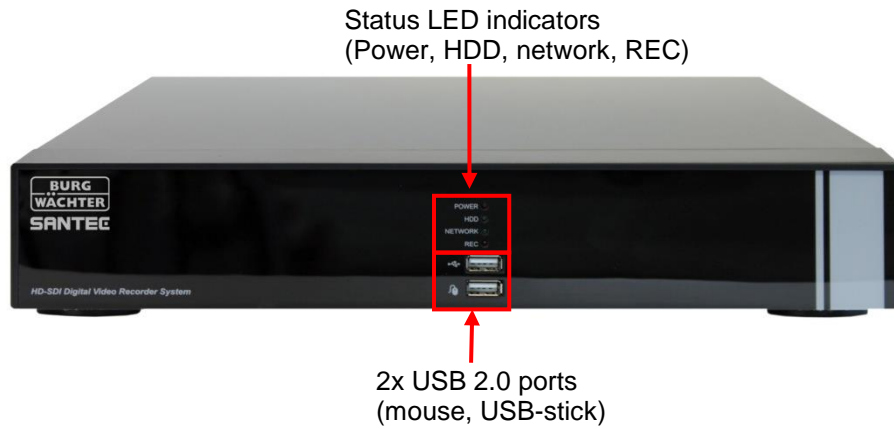
Note on GPL licence:

Please note that the recorder contains Open Source Software which is exclusively licenced by GNU General Public License (GPL). In order to ensure a GPL-compliant usage of the programs, please refer to the GPL licence document. You will find this document on the supplied CD.

You may receive the applied Source Codes from SANTEC BW AG by sending an e-mail to licence@santec-video.com within 3 years of purchase date.

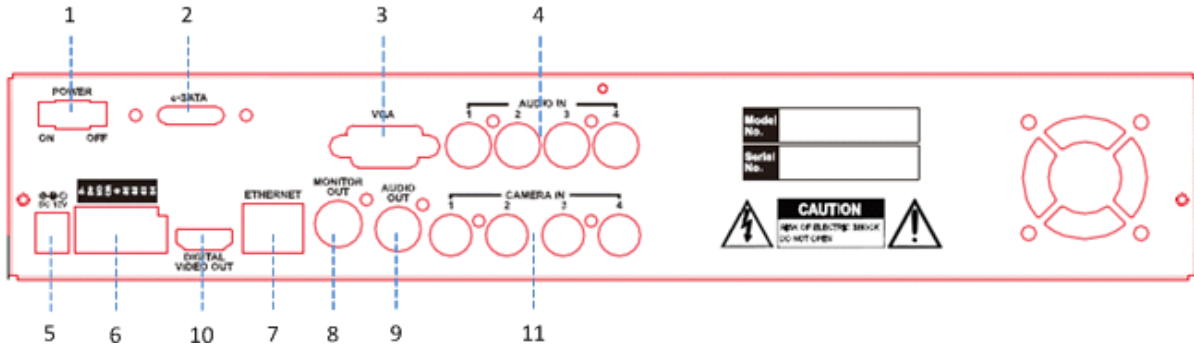
2. Control elements and indicators

2.1 Recorder front panel

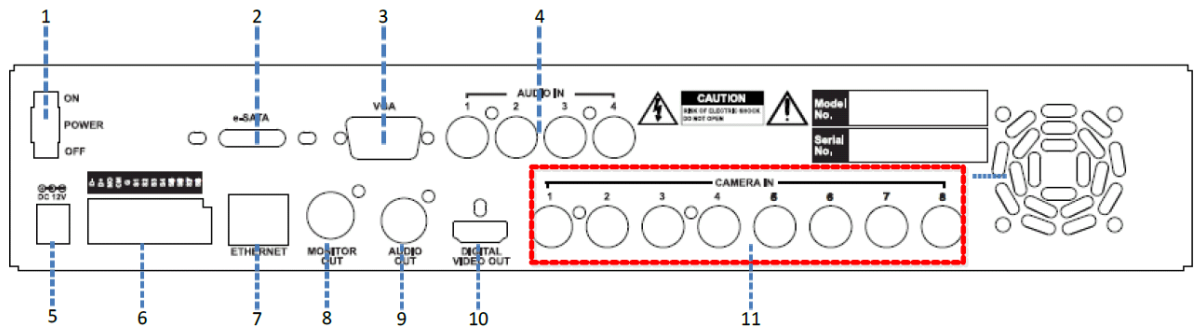


2.2 Rear panel connections

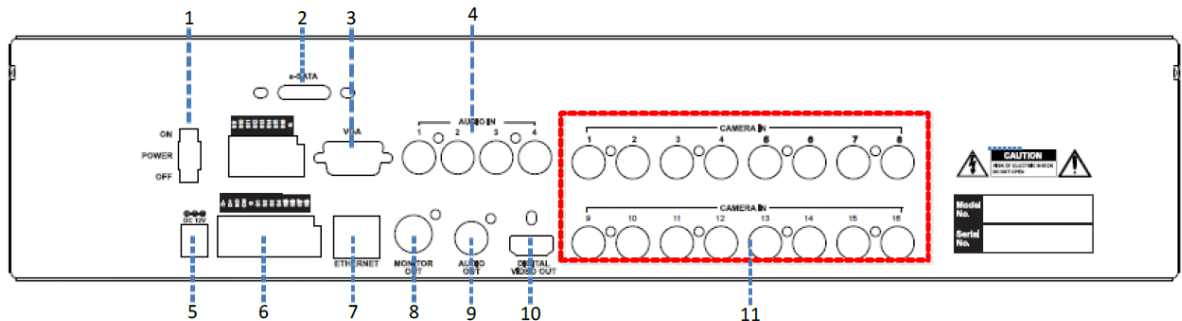
SanStore-4HDX (4 channels):



SanStore-8HDX (8 channels):



SanStore-16HDXS (16 channels):



1. Power on/off
2. e-SATA HDD connection
3. VGA main monitor connections (15 pin)
4. 4x audio input cinch
5. Power connection 12 V DC
6. Alarm inputs, RS-485, relay output:
 - 4, 8 or 16 alarm inputs (depending on recorder model)
 - RS-485 signal: G = Ground, D+ = RX/TX+ signal, D- = RX/TX- signal
 - Relay output: Normal Open (NO)
7. RJ-45 Ethernet port:
Connect the recorder with the network
8. Spot monitor output (BNC)
9. Speaker output (cinch)
10. HDMI main monitor connection
11. 4, 8 or 16 camera inputs (to connect HD-SDI or analogue cameras)

Note on connected monitor:

It is recommended to connect a 16:9 monitor with 1080p resolution to ensure a proper image format.

By factory default, the recorder comes with 1280 x 1024 resolution to also enable a proper image on a 4:3 monitor. Please adjust the settings (if required) to 1080p in the monitor menu of the recorder (also see chapter 7.2.2).

2.3 Controlling via mouse

You can control the recorder using a mouse. Connect a mouse (e.g. the one supplied with this shipment) to the USB port of the recorder's front or rear panel.

Left mouse click:

Make a left mouse click to navigate through the menu and to make selections.

If you are in split-view mode and make a double left click on one channel, it will be displayed as full screen.

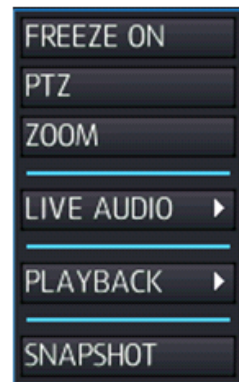
Double click again to return to the split-view mode.

Right mouse click:

Make a right mouse click anywhere in the image to call-up the quick menu.

Click anywhere in the image again to close the quick menu.

Further details are available in chapter 6.



2.4 PC requirements for network connection

	Minimum	Recommended
Operating system	Windows XP	Windows 7
CPU	Core2 Duo @2,53 GHz	Core i5 @3,3 GHz oder mehr
Memory (RAM)	1 GB	2 GB
Video memory card	512 MB	512 MB
HDD capacity	50 MB	2 GB
VGA resolution	1280 x 1024	1980 x 1080
DirectX	DirectX 7.0	DirectX 9.0c
Network	Ethernet 10/100B-TX	

Note:

The connection and remote viewing of the recorder may not be successful on all PCs due to the variety of PCs' Internet connection settings.
Please contact the technical support for further assistance.

3. Firmware update

If required, please install a new firmware update on the recorder.

A firmware update is required to improve the stability and reliability of the recorder or to add new functions.

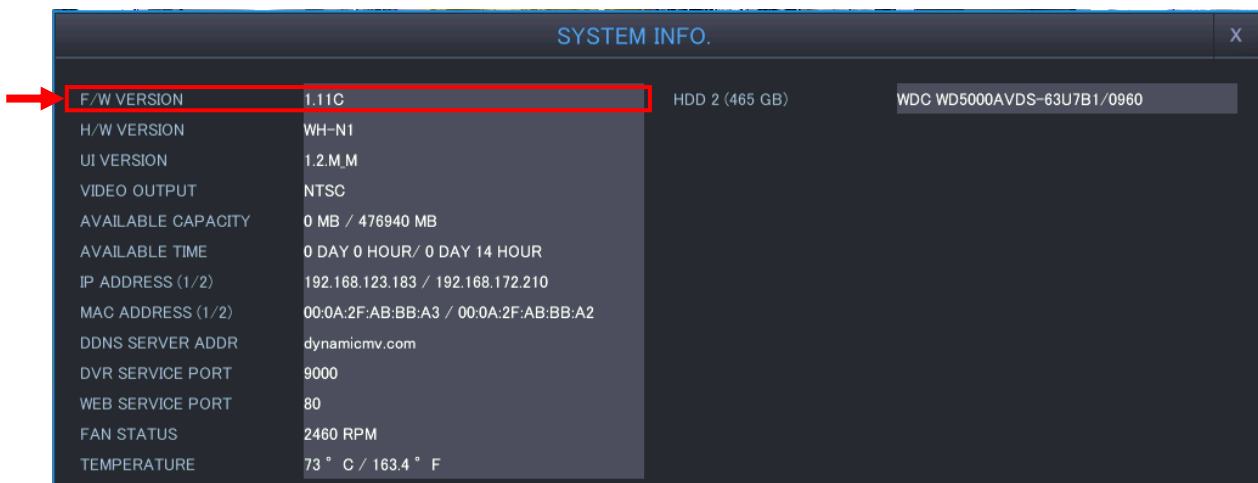
The latest firmware/software versions and instructions can be downloaded from our webshop at the respective product section.

www.santec-video.com

- ➔ Products & Shop
- ➔ Videomanagement & recording
- ➔ SanStore HD-SDI digital recorder
- ➔ SanStore-4HDX (or SanStore-8HDX or SanStore-16HDXS)
- ➔ Downloads ➔ Firmware/Software

Information on which firmware version is currently installed on the recorder can be found here:

System ➔ Management ➔ System Info ➔ Info



You can use the USB port to install a new firmware version. This method is recommended.

Please format the USB stick at the recorder. Create a root directory at the USB port and name it „dvr“. Then copy the downloaded firmware in this directory (please unzip the file first).

Basically, it is also possible to make a firmware update via the web, thus remotely. Please ensure that you use a safe and stable connection to make the update successful.

Please also read chapter 7.4.2 on firmware updates.

Note:

The firmware file name is structured in a way that you can see the firmware version number already in the file name.

4. Switching the recorder on and off

4.1 Switching on

- Verify that the camera(s) are properly connected to the recorder and that they are switched on.
- Connect one or several monitors to the recorder (VGA, HDMI, spot monitor BNC).
- Connect a mouse to the recorder's USB port on the front panel.
- Connect the recorder to power. Use the power-on button on the recorder rear to switch it on. The recorder boots, along with a beep sound.

When the recorder boots, the following screen is displayed:



Note on connected monitor:

It is recommended to connect a 16:9 monitor with 1080p resolution to ensure a proper image format.

By factory default, the recorder comes with 1280 x 1024 resolution to also enable a proper image on a 4:3 monitor. Please adjust the settings (if required) to 1080p in the monitor menu of the recorder (also see chapter 7.2.2).

Once the recorder has booted, the scheduled recordings start automatically provided they have properly been scheduled.

The recorder is now ready to use. The following split-view screen of the live view is displayed.



The screenshot shown above is for 16 channels. Respective views apply for 4 and 8 channels.

If you start the recorder for the first time, you have to enter your login details. The following factory default login information are used.

User name: ADMIN
Password: 1234



To enter your password, left click on the virtual keyboard and confirm your entry by „Enter“ and then by „OK“.

Note:

It is highly recommended to change the default login information („ADMIN“ and „1234“). Please also read chapter 7.6.1.

User ➔ Add user

If you have previously been logged in and have not logged out before switching of the recorder, you don't need to login again but can start with the live view.

Further information on login can be found in chapter 7.4.2.

System ➔ Management ➔ Auto Login

If you wish to change the menu language, please read chapter 7.2.1

Display ➔ OSD ➔ Language

4.2 Logout and switching the recorder off



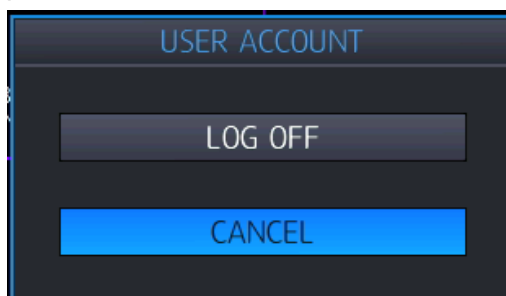
There are 2 options to logout from the recorder: Manually or automatically after a specified period of time.

Manual logout:

Click on this symbol in the tool bar:



The following window pops up:



If you click on “Log off”, you are logged off of the recorder and cannot use it anymore. If you want to work with the recorder again, you need to first login again. However, the recorder is not switched off yet and is still running. Only the user is logged off.

If you log off prior to switching off the recorder, you need to login when powering the recorder again.

If you switch off the recorder without logging off, you are still logged in when powering the recorder the next time and you don't need to enter your password again.

Automatic logout:

To automatically logout after a specified period of time, please read chapter 7.6.3.

Switching the recorder off:

In order to finally switch off the recorder, it is not required to logout first (see previous section). If you switch off the recorder without logging off, you are still logged in when powering the recorder the next time and you don't need to enter your password again.

To finally switch off the recorder, please use the power on/off button on the recorder rear. A window is displayed prompting you for your password (default password for the "ADMIN" is „1234“).



To enter your password, left click on the virtual keyboard and confirm your entry by „Enter“ and then by „OK“.

A warning message appears prompting you to confirm your action („Are you sure?“). Please confirm by clicking „OK“. The recorder will shut down after a few seconds.

5. Tool bar

Once you have switched on the recorder as previously explained, the live view (split view mode) of the connected cameras is displayed.

If you are in live view mode and move the mouse cursor to the edge of the image, the following tool bar is displayed:

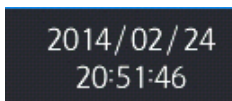


The tool bar is displayed for a defined period of time (5/10/15/20/30 sec, 1 min) or permanently. To set the display time of the tool bar please go to:
(see chapter 7.2.1):

Display → OSD → Toolbar display time

5.1 Status display

The following information are displayed in the tool bar:



Date and time are displayed.



The network connection is displayed.



It is displayed whether a device is connected to the USB port.



The auto sequence is displayed.



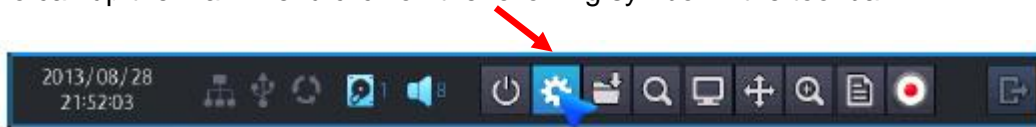
It is displayed which HDD is currently recording.



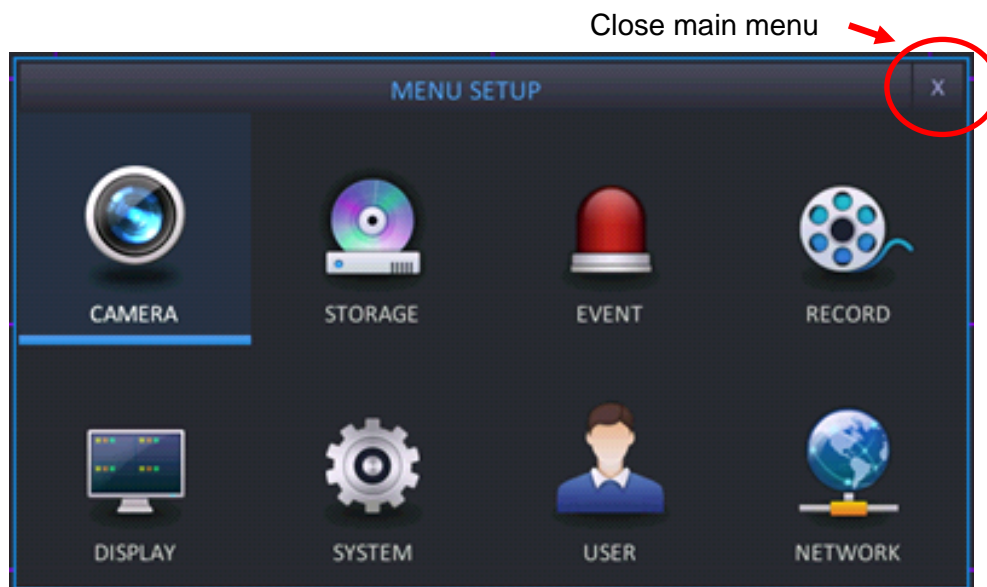
It is displayed which audio channel is currently being recorded.

5.2 Calling up the main menu

To call-up the main menu click on the following symbol in the tool bar:



The following menu window is displayed:



In the main menu, settings can be made for:

- Camera
- Display
- Storage
- System
- Event
- User
- Record
- Network

Left click on the menu item you wish to edit.

To close the main menu, click on the little cross in the upper right corner. The live image will be displayed again.

Please read the following chapters for further explanations.

5.3 Calling-up the backup menu



To call-up the backup menu, click on the following symbol in the tool bar:



A little window is displayed where you can define the following for the backup:

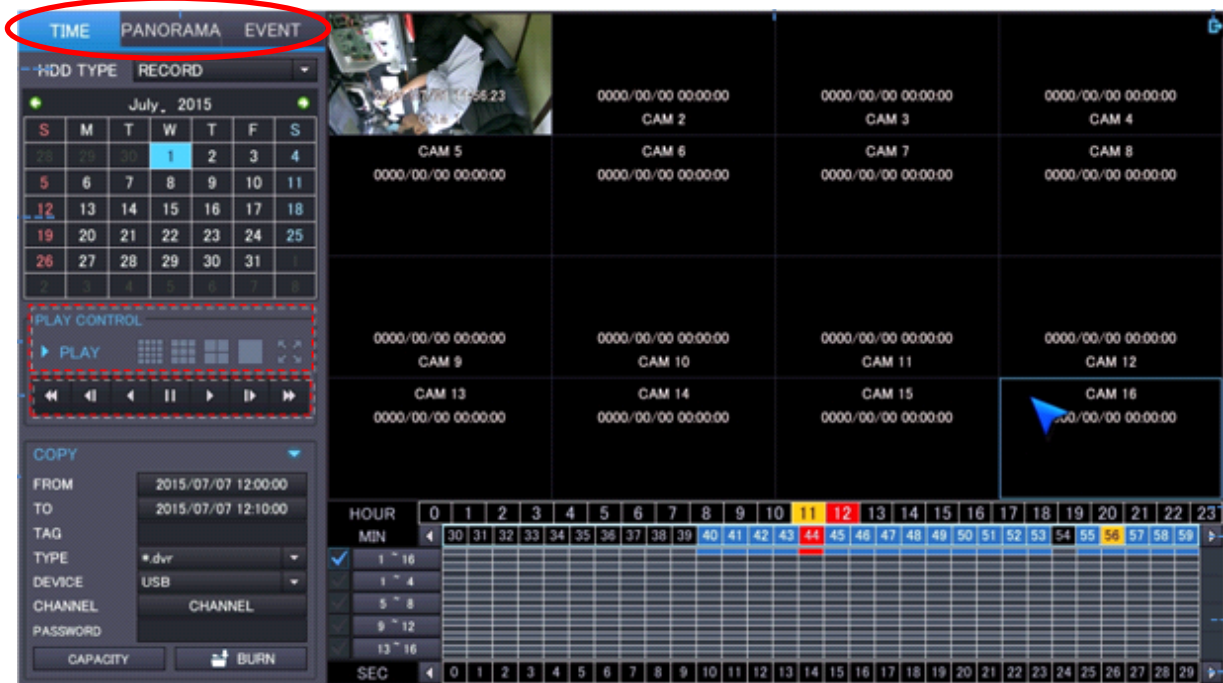
- **Format:**
.avi or .dvr
- **From:**
Enter the start date and time for the backup. By default, the last 10 minutes are defined for backup.
To change the date/time, please double-click in the date/time field. A window is displayed. Use the up/down arrow to change the date (year, month, day) and the time (hour, minute, second).
Finally, click on „OK“
- **To:**
Enter the end date/time for the backup.
To change the date/time, please proceed as described above.
- **Burn:**
Click on „Burn“ to start the backup.
- **Cancel:**
Click on „Cancel“ if you wish to abort the backup process.

5.4 Calling-up the search menu

To call-up the search menu, click on the following symbol in the tool bar:



The following menu window is displayed:



You can search for video recordings by the following categories (see tabs in upper left corner of the above screenshot):

1. Time
2. Panorama
3. Event

The search options for the 3 categories „Time“, „Panorama“ and „Event“ are further described in the following chapters.

5.4.1 Search menu: Time



To search for a recording by time, please proceed as follows:

1. Day selection:
 In the calendar, the recording days are highlighted in blue. Click on the blue marked recording day.
2. Hour/minute/channel selection:
 Once you have selected a day, the recording hours are marked in red. Click on a red marked hour which will then turn yellow. For the selected hour, the minutes will be displayed in red along with the channel which triggered the recording.

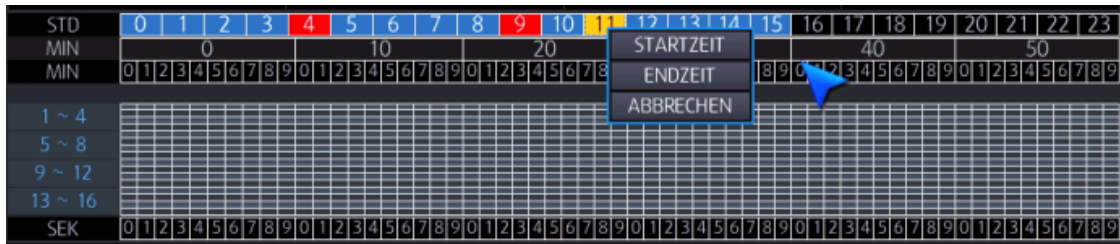


Click on the desired channel. The recordings for the selected day and the selected time is now played back.

In the above screenshots, the following example has been chosen:

- Day: 1 July 2015
- Hour: 11
- Min: 44
- Channel: 1-4

Right-click on the hour or the minute to define the start time or end time for the backup (copy).



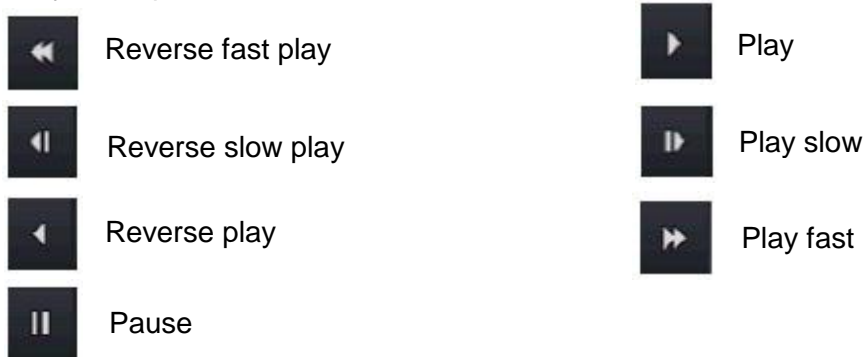
3. Playback:



Here you can define the view mode for the playback:



Playback speed and direction control:



4. Copy:

Here you can store (copy) video recordings on an external device.

- **From:**
Enter the start date and time for the backup. By default, the last 10 minutes are defined for backup.
To change the date/time, please double-click in the date/time field. A window is displayed. Use the up/down arrow to change the date (year, month, day) and the time (hour, minute, second).
Finally, click on „OK“
- **To:**
Enter the end date/time for the backup.
To change the date/time, please proceed as described above.
- **File name:**
Double-click into the entry field. The virtual keyboard is displayed. Use the mouse to enter the desired file name. Confirm your entry by clicking “Enter” on the virtual keyboard.



- **Type:**
Select the file format: .avi or .dvr
- **Channel:**
Click on „channel“ to select the desired channel (several selections possible).
- **Burn:**
Finally, click on „Burn“ to start the copy process.

The menu window is closed by the exit symbol in the upper right corner. 

5.4.2 Search menu: Panorama

Use the panorama search to search for events in 16-split view mode.



To search for a recordings by using the panorama search, please proceed as follows:

1. Day selection:
In the calendar, the recording days are highlighted in blue. Click on the blue marked recording day.
2. Hour/minute/channel selection:
Once you have selected a day, the recording hours are marked in red. Click on a red marked hour which will then turn yellow. For the selected hour, the minutes will be displayed in red along with the channel which triggered the recording.



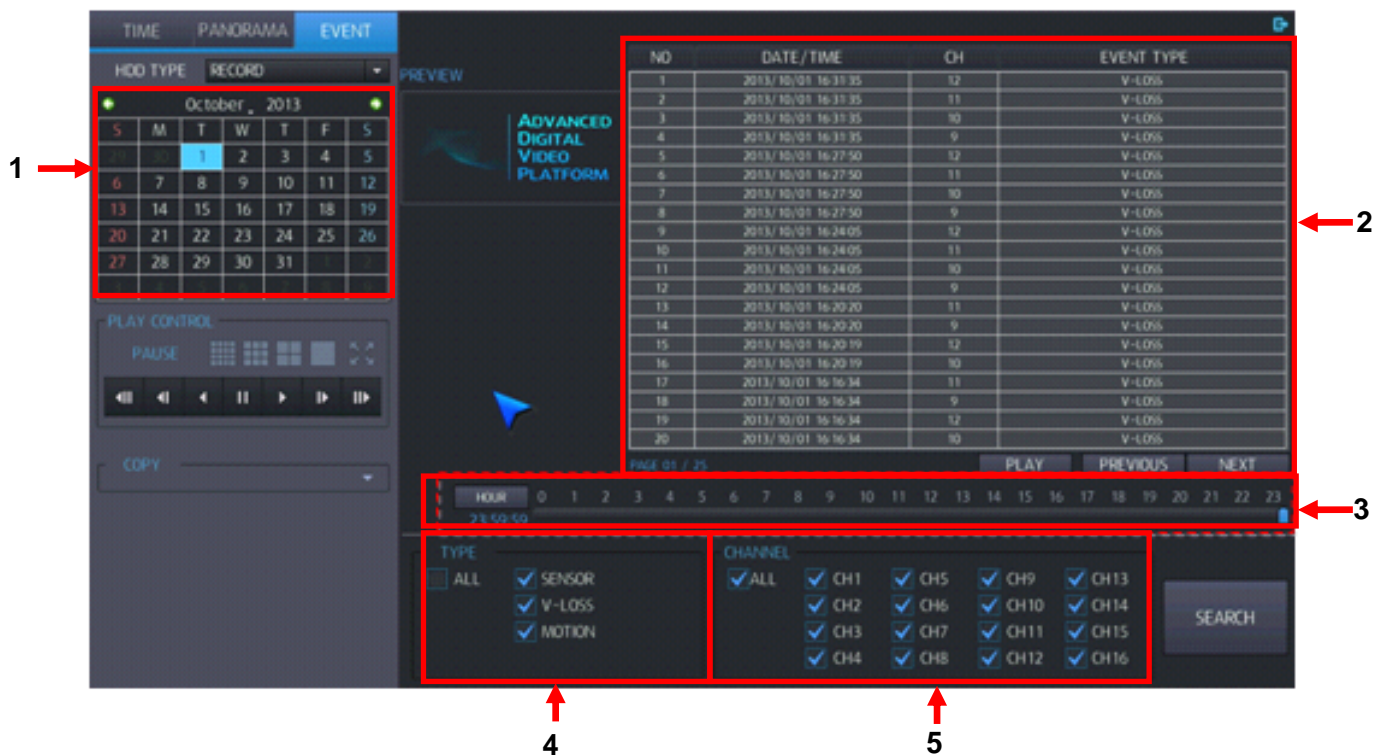
Once your selection is made, you can define the sequence of images:
1 image per hour, 1 image per minute or 1 image per second.

The playback view and the copy function are done as explained in chapter 5.5.1 „Search menu: Time”.

The menu window is closed by the exit symbol in the upper right corner.




5.4.3 Search menu: Event



To search for a recordings by using the event search, please proceed as follows:

1. Day selection:
In the calendar, the recording days are highlighted in blue. Click on the blue marked recording day.
1. Event list:
All recorded events for this day are listed chronologically (the newest event is on top of the list). Click on an event in that list and then click „Playback“ to view this event. Click on “Previous” or “Next” to scroll through the list.
2. Time selection:
Use the time bar to select the time of an event.
3. Event type:
Select the type of event: All, sensor, video loss or motion.
4. Channel:
Select the channel the event has been recorded to.

The playback view and the copy function are done as explained in chapter 5.5.1 „Search menu: Time“.

The menu window is closed by the exit symbol in the upper right corner. 

5.5 Calling-up the display menu

To call-up the display menu, click on the following symbol in the tool bar:



You can select the display format.



Single view



4-view



9-view



16-view



Start sequence on main monitor



Start sequence on spot monitor

5.6 Calling-up the PTZ menu

Note:

The PTZ menu can only be used if a PTZ enabled camera is connected.

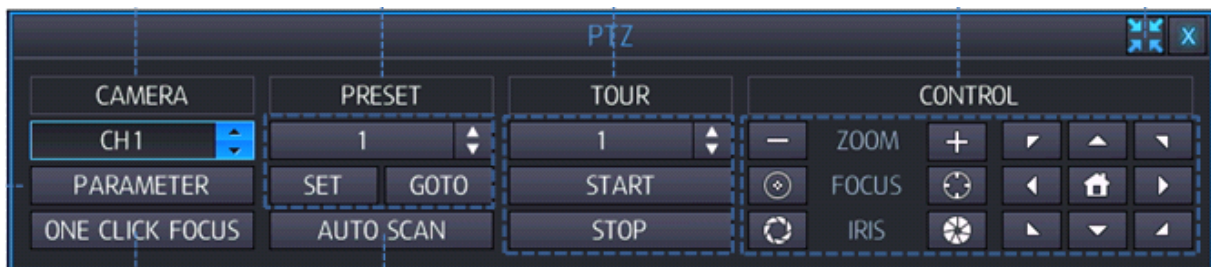
If you are in a multi-split viewing mode, the PTZ control is enabled for the selected camera. If you haven't selected a camera before, the PTZ control is enabled for camera number 1.

If you are in the single view mode, the PTZ control is enabled for this camera.

To call-up the PTZ menu, please click on the following symbol in the tool bar:



The following PTZ window is displayed:



Here you can set the different PTZ functions:

Camera:

- Channel selection:
Use the up/down arrows to select the desired channel.
- Parameter:
Click on „Parameter“ to make the following adjustments (default = 5):
 - Auto focus: On or off.
 - Auto iris: On or off.
 - P/T speed: 1 – 10
 - Zoom speed: 1 – 10
 - Focus speed: 1 – 10
 - Iris speed: 1 – 10
- One click focus:
Click on „One click focus“ to automatically adjust the focus/focal length.

Preset:

- Preset number:
Use the up/down arrows to select the desired preset (0 – 256).
- Set
- Go to
- Auto xcan

Tour:

- Tour number:
Use the up/down arrows to select the desired tour (1 – 6).
- Start
- Stop

Control:

- Zoom:
Use the plus and minus buttons to zoom in and out.
- Focus:
Use the focus buttons to adjust the focus manually.
- Iris:
Use the iris buttons to adjust the brightness manually.
- Direction buttons and home button:
Use the direction buttons to move to the desired direction. Click on the home button to open the OSD menu.

Use the  symbol in the upper right corner to change the size of the PTZ menu box.

Use the X in the upper right corner to close the PTZ menu.

Note:

The PTZ control can also be called-up by using the quick menu (see chapter 6).

5.7 Digital zoom

There are 2 options to control the digital zoom:
Either by using the zoom symbol in the tool bar or by using the mouse in the camera image.

Zoom by using the zoom symbol in the tool bar:

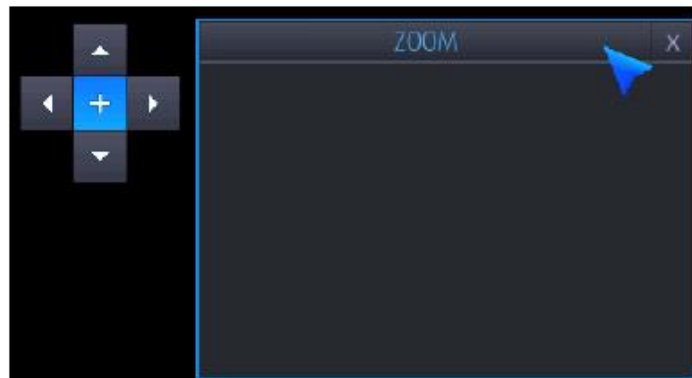
To call-up the menu for the digital zoom, please click on the following symbol in the tool bar:




If you are in a multi-split viewing mode, the digital zoom is enabled for the selected camera. If you haven't selected a camera before, the digital zoom is enabled for camera number 1.

If you are in the single view mode, the digital zoom is enabled for this camera.

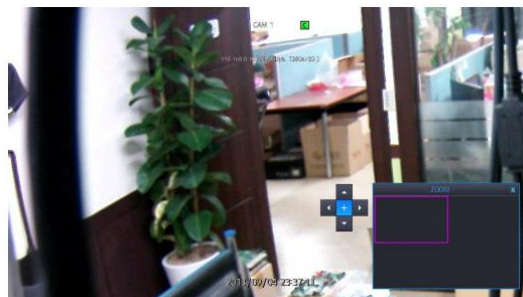
If you call-up the zoom menu, the following window is displayed:



Use the direction buttons to move the zoom box left, right, up or down.

Use the  in the center of the direction buttons to 5x zoom in.

Example view:



Use the X in the upper right corner to close the zoom menu.

Zoom by using the mouse in the camera image:

You can use the mouse to zoom the camera image.

Display the desired channel as full screen. Left-click into the image and draw an area in the image which you would like to zoom. This will be done at 5x zoom-
If you click anywhere in the image, you will return to the previous view.

The zoom function can be used in both live image and playback image.
The zoom function only works in full screen mode.

Example view:



Note:

The digital zoom can also be called-up by using the quick menu (see chapter 6).

5.8 Calling-up the log list



To call-up the menu for the log list, please click on the following symbol in the tool bar:



In the displayed window, the logs are sorted chronologically (the newest log is on top of the list).

Close the log window by clicking on the X in the upper right corner.

5.9 Panic recording

To call-up the panic recording menu, please click on the following symbol in the tool bar:



If you left-click on the panic recording button, the recording start immediately. It will overwrite all other recordings which might be running.

While the panic recording is running, the red letter P is displayed in the video image and the symbol is marked in blue in the tool bar.

The panic recording cannot be stopped manually (it won't stop either if you click on the symbol in the tool bar again).

Therefore it is recommended to adjust the settings for panic recording prior to a possible emergency situation.

The settings for panic recordings are adjusted here:

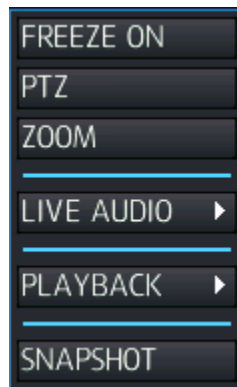
Main menu => Record => Panic (see chapter 7.7.4)

and here:

Main menu => Record => Misc. (see chapter 7.7.5)

6. Quick menu

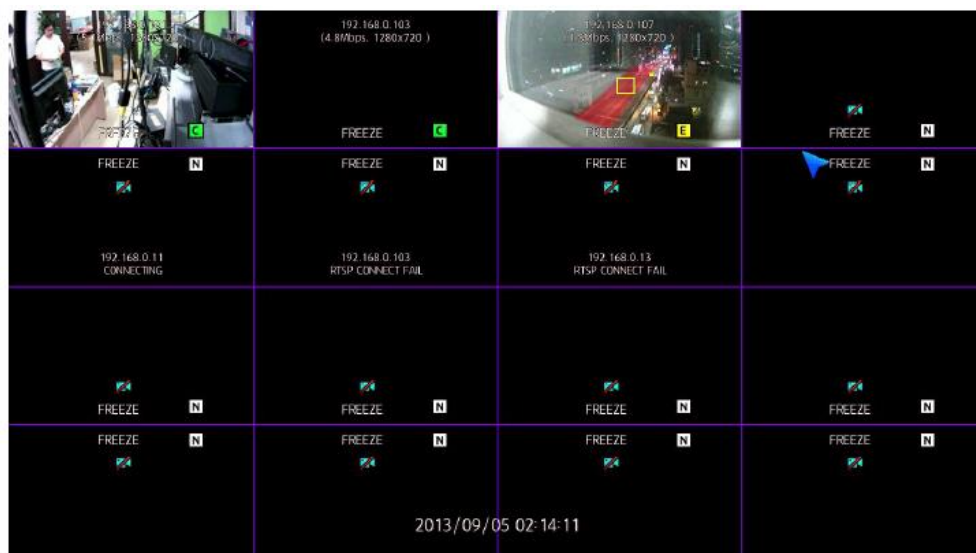
You can call-up the quick menu by right-clicking in the live view image (either in full screen or in split screen): The following quick menu is displayed:



Freeze on:

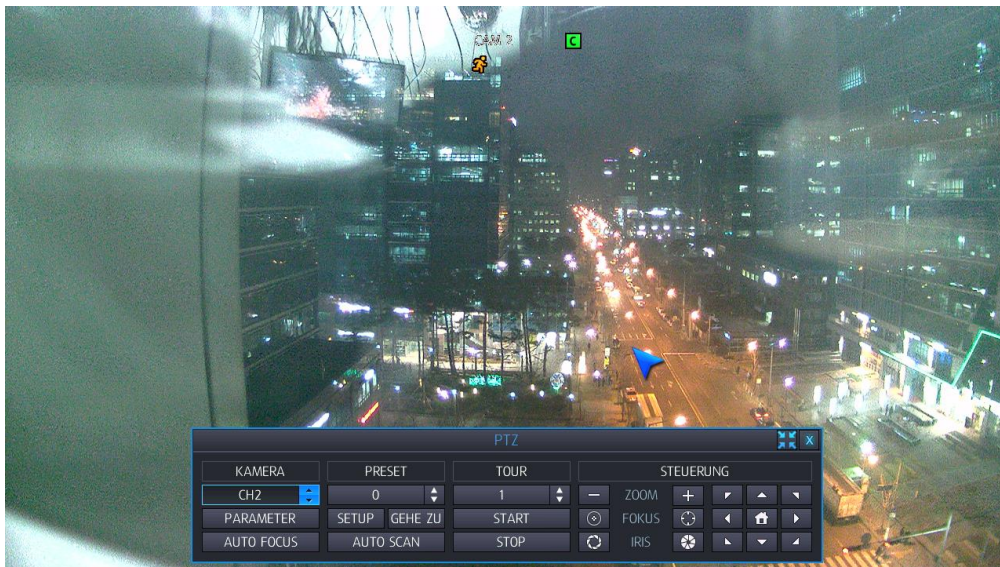
If you click on „Freeze on“, all images on all channels will be frozen. Wenn Sie auf „Standbild ein“ klicken, werden die Bilder auf allen Kanälen eingefroren (Standbilder). Recordings, however, will continue.

Right-click in the live image to call-up the quick menu and click on „Freeze off“ to return to the regular view.



PTZ:

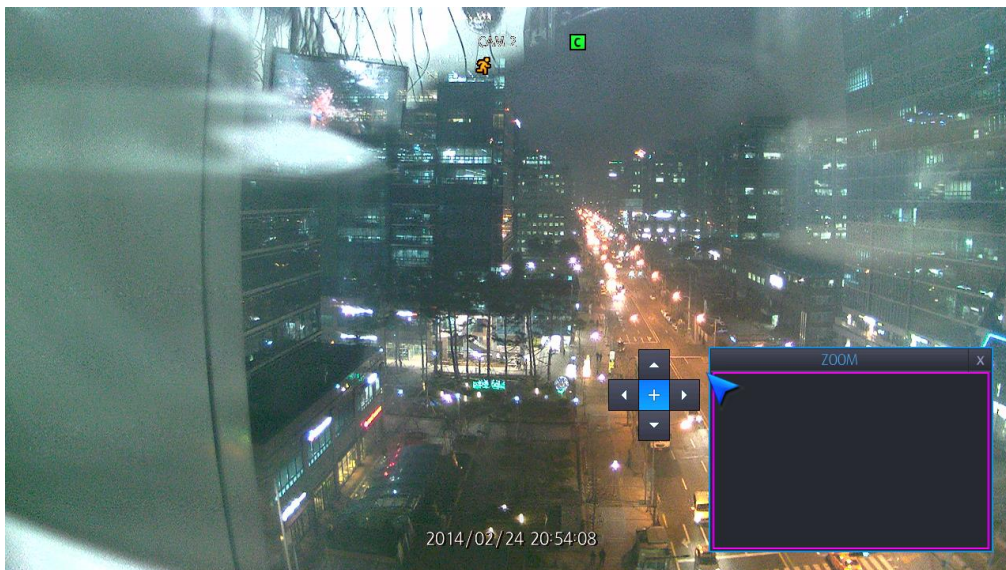
If you select „PTZ“, the PTZ control menu will be displayed in the video image. The PTZ control can only be used by one authorized user. PTZ will be activated for the channel you have selected.



Further information on PTZ control can be found in chapter 5.7.

Zoom:

Click on „Zoom“ to bring-up the zoom window in the video image. The zoom will be activated for the channel you have selected.



Further information on the zoom can be found in chapter 5.7.

Live audio:

If you select „Live audio“, you can choose audio channels 1-4.

Important note:

Regarding transmission and recording of audio data, please respect the laws and legal regulations which apply in your country.

Playback:

Selecting „Playback“ will allow you to view instant playback of the selected camera from 10 sec, 20 sec, 30 sec or 1 min ago. If „Go to“ is selected, you can select the time you wish to view.

Snapshot:

You can make snapshots of the live image. These will be stored as jpg files via the USB port.

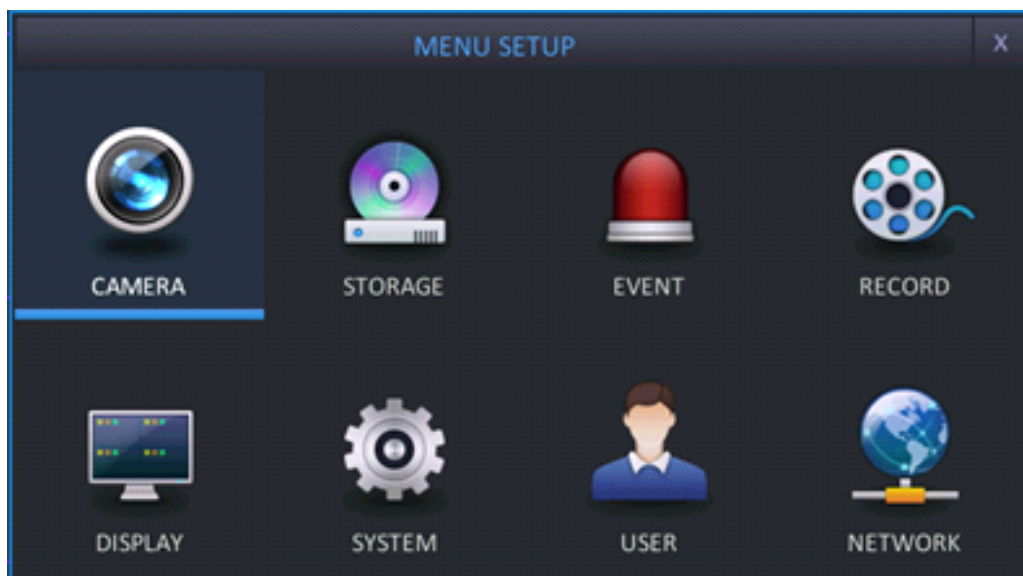
7. Main menu

To configure the recorder you have to call-up the main menu.

To call-up the main menu, please click on the following symbol in the tool bar:



The following window is displayed:

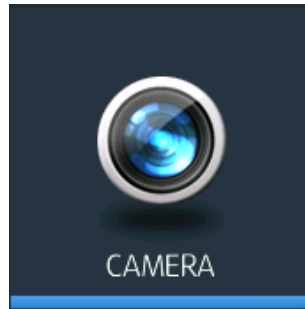


Here you can make configurations for:

- Camera
- Display
- Storage
- System
- Event
- User
- Record
- Network

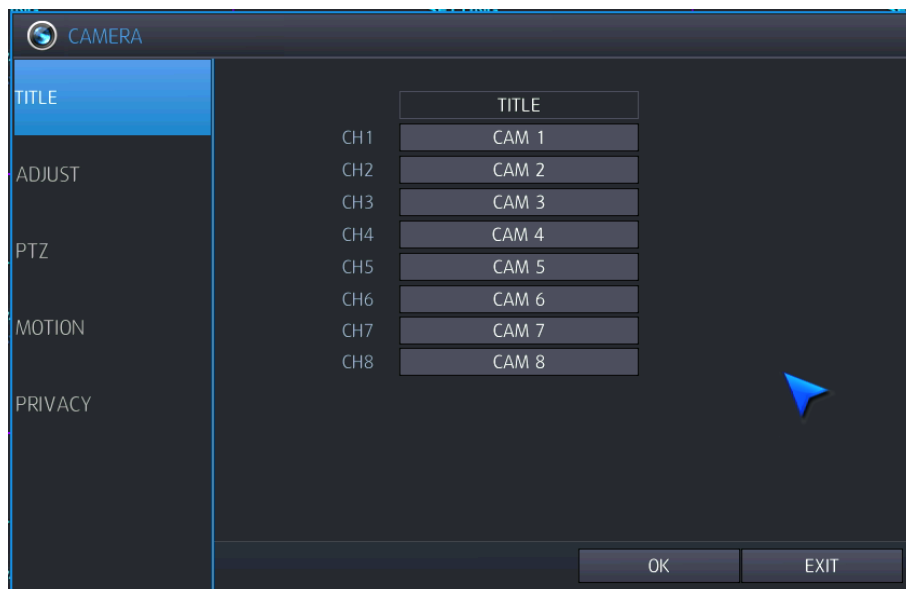
Please read the following chapters for further details.

7.1 Camera



Click on the camera symbol.

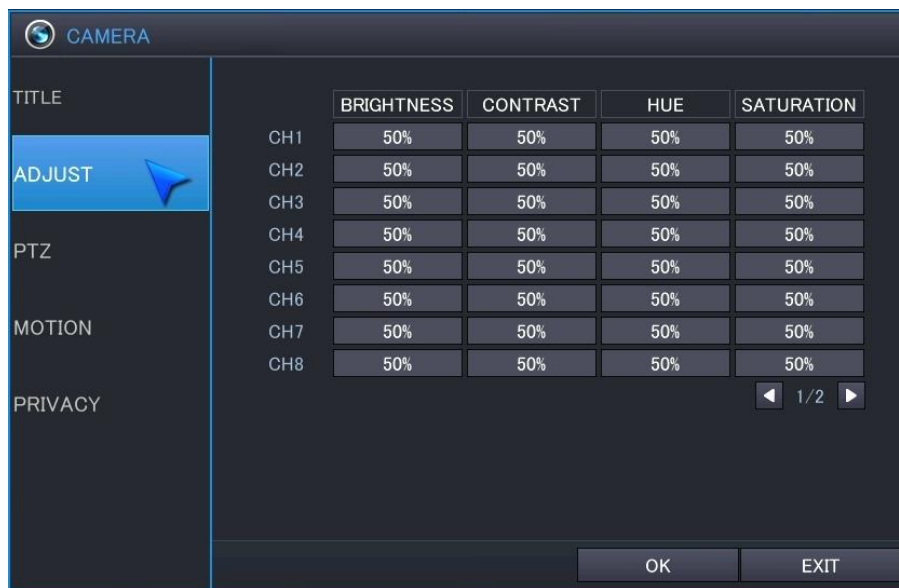
7.1.1 Title



Double-click in the entry field of the respective channel to bring-up the virtual keyboard. You can now enter a camera name (title) consisting of max. 10 characters.

Click on „OK“ to confirm your entry and to return to the main menu.
Click on “Exit” to return to the main menu without saving the changes.

7.1.2 Adjust



For each camera, the following parameters can be set:

- Brightness
- Contrast
- Hue
- Saturation

For each parameter, the range of value is 0-100%.

Click on „OK“ to confirm your entry and to return to the main menu.

Click on “Exit” to return to the main menu without saving the changes.

7.1.3 PTZ



For each camera, the following parameters can be set:

- Address: ID of the PTZ camera
- Protocol: Protocol of the PTZ camera
- Baud rate: Baud rate of the PTZ camera
- Detail: PTZ properties can also be adjusted for each channel: Auto focus, Auto iris, P/T speed, zoom speed, focus speed, iris speed.

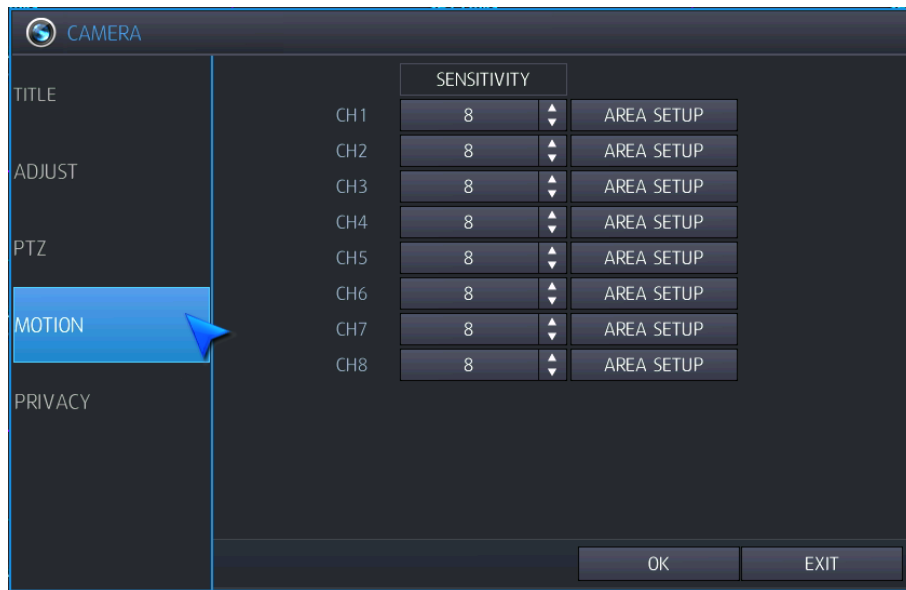
Note:

Some settings, such as auto focus, may not be compatible with particular PTZ cameras. If this is the case, changing this value will not have any effect on the PTZ control.

Click on „OK“ to confirm your entry and to return to the main menu.

Click on “Exit” to return to the main menu without saving the changes.

7.1.4 Motion

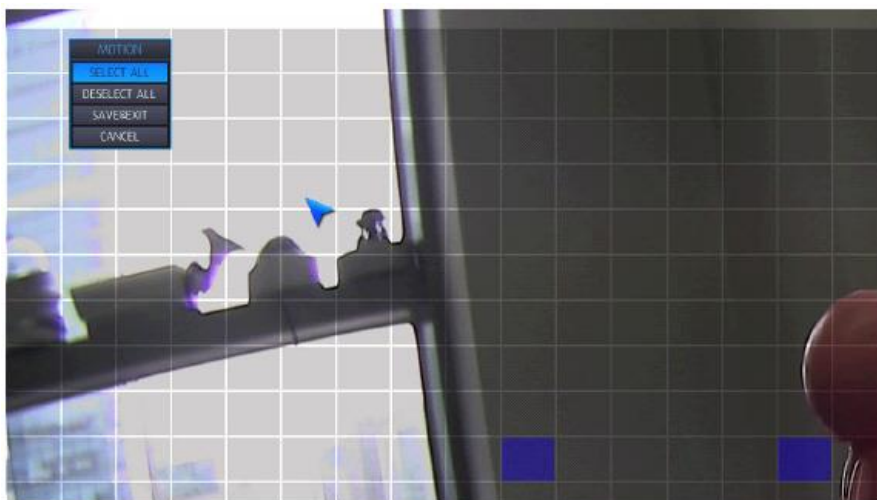


Sensitivity:

For each camera, the sensitivity can be set (1-10) and the area of motion detection can be defined.

Area setup:

If you click on „Area setup“, the video image is covered with a grid. Motion is either detected for the entire grid or for individual grids/areas. By default, the entire grid is activated and marked in violet.



You can click on single grid cells to disable them from the grid, thus they will be removed from the motion detection area. These non-active grids are displayed in grey.

You can define individual areas for motion detection by left-clicking in the desired grid cell(s). This cell is hence enabled and displayed in grey. If you click again the the cell(s), they will be disabled again.

To quickly select or deselect the entire image, thus all cells in the grid, right-click into the image. A little motion menu is brought up:



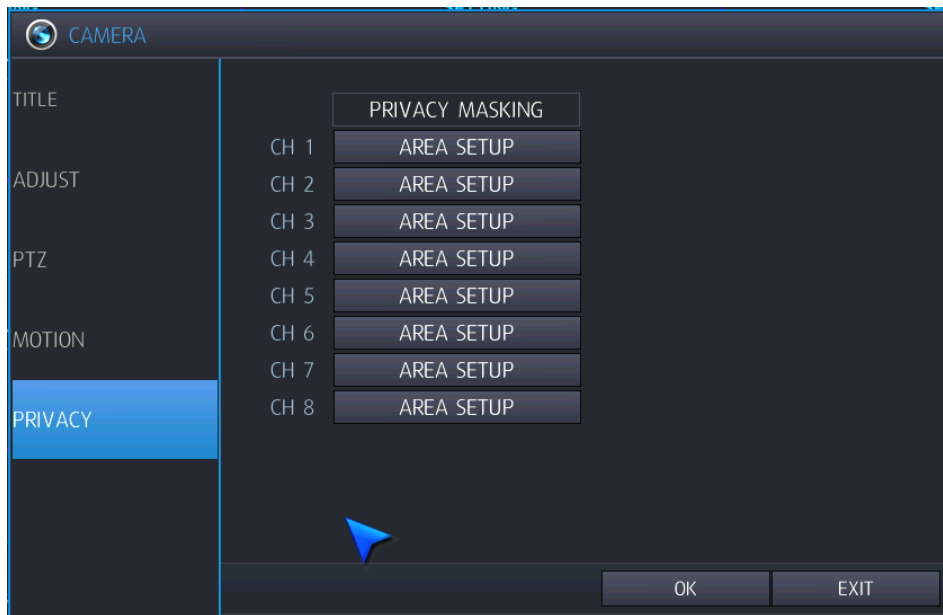
Click on „Select all“ or „Deselect all“ to enable or disable the entire grid.

You may also press and hold the left mouse button to drag across several cells to mark them. Then click “Select all” or “Deselect all”.

Finally, click on „Save & Exit“ to save the settings for motion detection and to return to the main menu.

Click on „Cancel“ to return to the main menu without saving the changes.

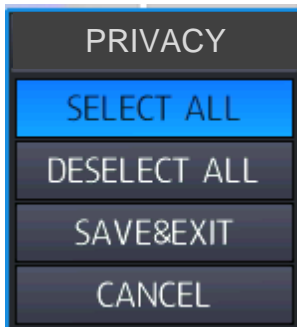
7.1.5 Privacy masking



For each channel, privacy masking zones can be defined, i.e. these areas will be masked (covered) in live view as well as in playback.

Define privacy masking zones:

Drag with the left mouse button an area into the desired position. Once you release the button, a little menu window is displayed.



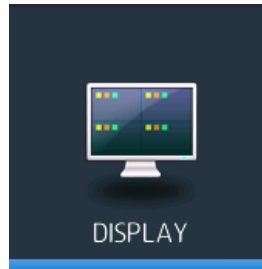
Click on „Select all“ or „Deselect all“ to enable or disable the entire grid.

You may also press and hold the left mouse button to drag across several cells to mark them. Then click “Select all” or “Deselect all”.

Finally, click on „Save & Exit“ to save the settings for privacy masking and to return to the main menu.

Click on „Cancel“ to return to the main menu without saving the changes.

7.2 Display



Click on the display symbol.

7.2.1 OSD

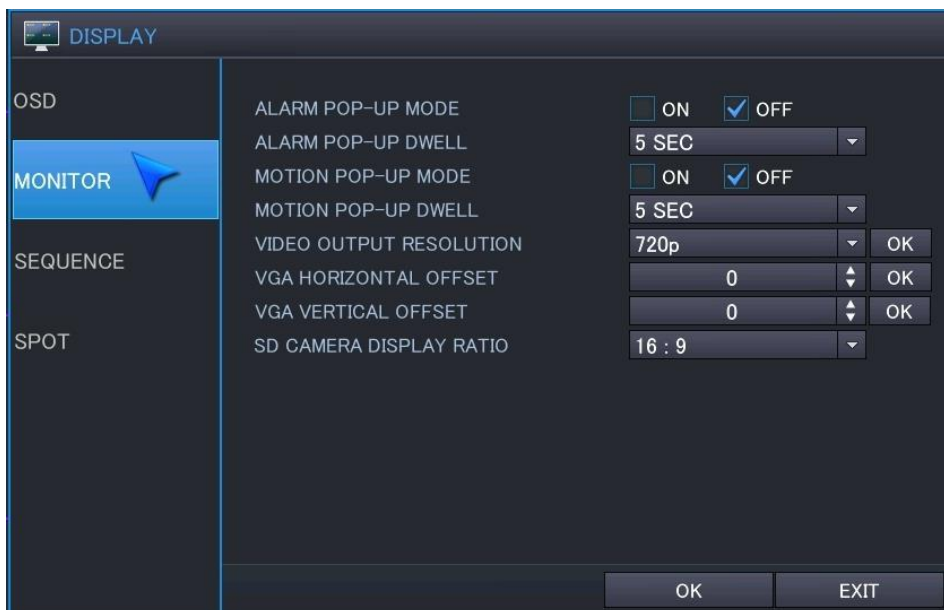


Here you can make adjustments for the following settings:

- **Toolbar display time:**
Define whether the tool bar is to be displayed „Always on“ or whether it will be hidden after a specified period of time (5/10/15/20/30 sec, 1 min).
- **Camera title:**
Define whether the camera title is to be displayed in the video image.
- **Recording mode icon:**
Define whether the recording status is to be displayed in the video image.
- **Border:**
Define whether each image in multi-split view is to be marked by a coloured border.

- **Border colour:**
If you have activated the „Border“ function (see above), then you can define the border colour to frame each image in the multi-split view.
- **Event icon:**
Define whether the event icon (alarm, video loss) is to be displayed in the video image.
- **Language:**
Select the language for the OSD menu and confirm your selection by clicking „OK“.

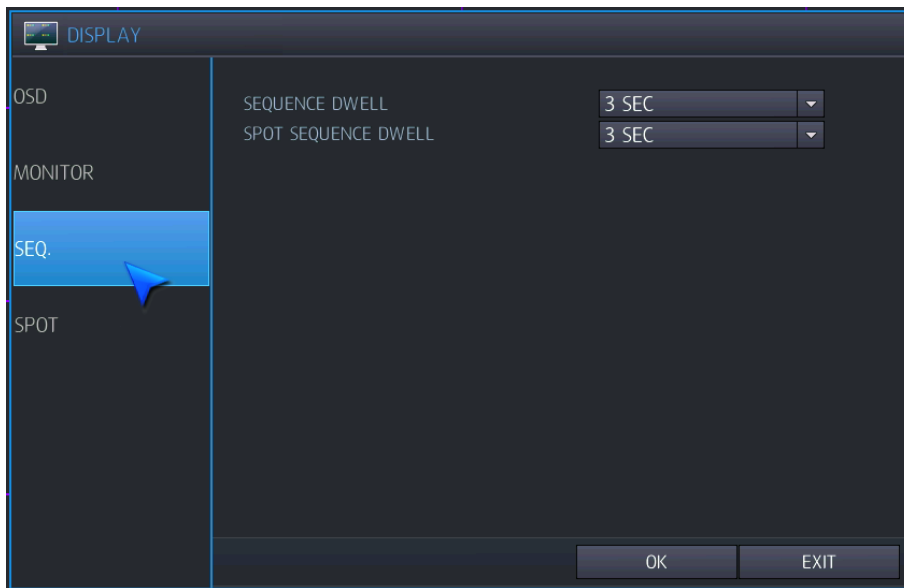
7.2.2 Monitor



Here you can make the following adjustments:

- Alarm pop-up mode:
If set to „On“, an alarm input will cause the associated channel to be displayed in full screen.
- Alarm pop-up dwell:
Determine how long the full screen pop-up is to be displayed after an alarm has occurred (3-60 sec).
- Motion pop-up mode:
If set to „On“, motion detection will cause the associated channel to be displayed in full screen.
- Motion pop-up dwell:
Determine how long the full screen pop-up is to be displayed after a motion has occurred (3-60 sec).
Note: If the motion continues longer, the full screen is displayed constantly.
- Video output resolution:
You can configure the video output resolution. Then click on “OK”.
Note on connected monitor:
It is recommended to connect a 16:9 monitor with 1080p resolution to ensure a proper image format.
By factory default, the recorder comes with 1280 x 1024 resolution to also enable a proper image on a 4:3 monitor. Please adjust the settings (if required) to 1080p in the monitor menu of the recorder.
- VGA horizontal/vertical offset:
You can change the horizontal/vertical position of the image. It is recommended to keep the default settings and only change them if absolutely required.

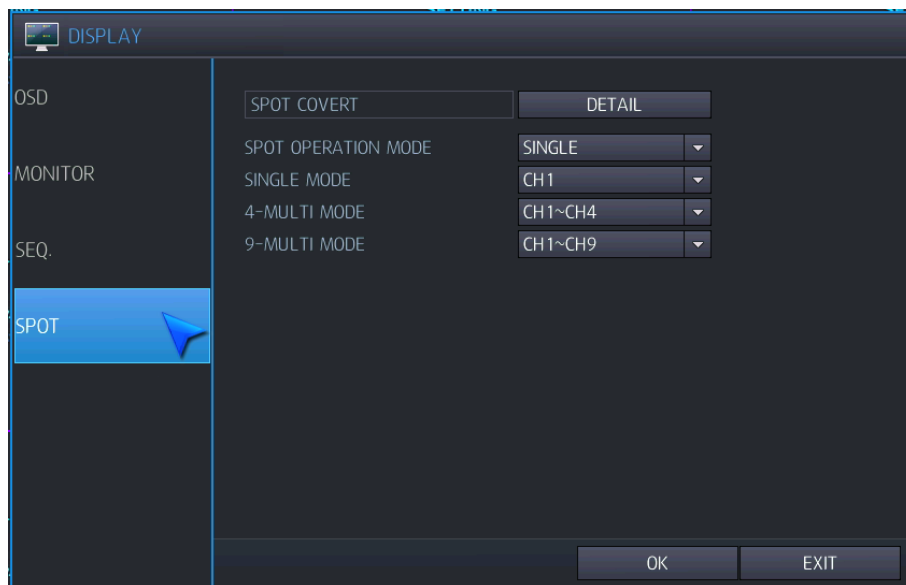
7.2.3 Sequence



The following settings can be adjusted:

- **Sequence dwell:**
Define the time that each screen is displayed in a sequence operation.
- **Spot sequence dwell:**
Define the time that each screen is displayed in a spot sequence operation.

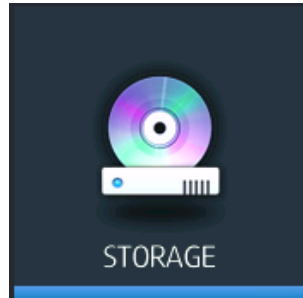
7.2.4 Spot



The following settings can be adjusted:

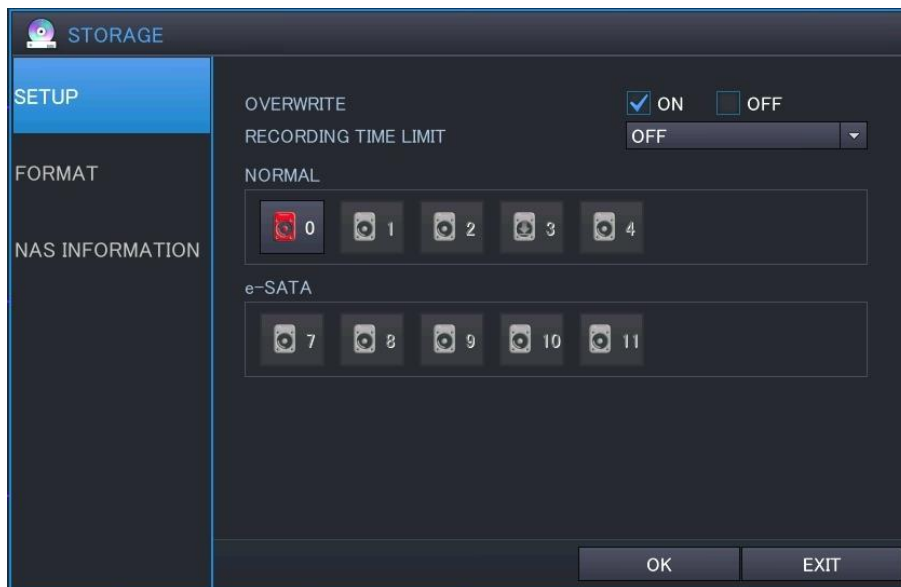
- **Spot covert:**
If you click on „Detail“, you can define for each channel whether it is to be covered or not.
- **Spot operation mode:**
You can choose from „Single“, „4-Multi“, 9-Multi“ or „16-Multi“.
- **Single mode:**
For each channel, every single image is displayed.
- **4-Multi mode:**
Quad view for cameras 1-4, 5-8, 9-12 or 13-16 (depending on recorder model)
- **9-Multi mode:**
9x view of cameras 1-9, the for 9-1 or vice versa.

7.3 Storage



Click on the storage symbol.

7.3.1 Setup



The following settings can be adjusted:

- **Overwrite:**
If enabled, the data will be overwritten.
- **Recording time limit:**
Define the duration (12 hours to 2 months).
- **Normal/e-SATA:**
Define the HDD to be „Record“ or „Mirror“.

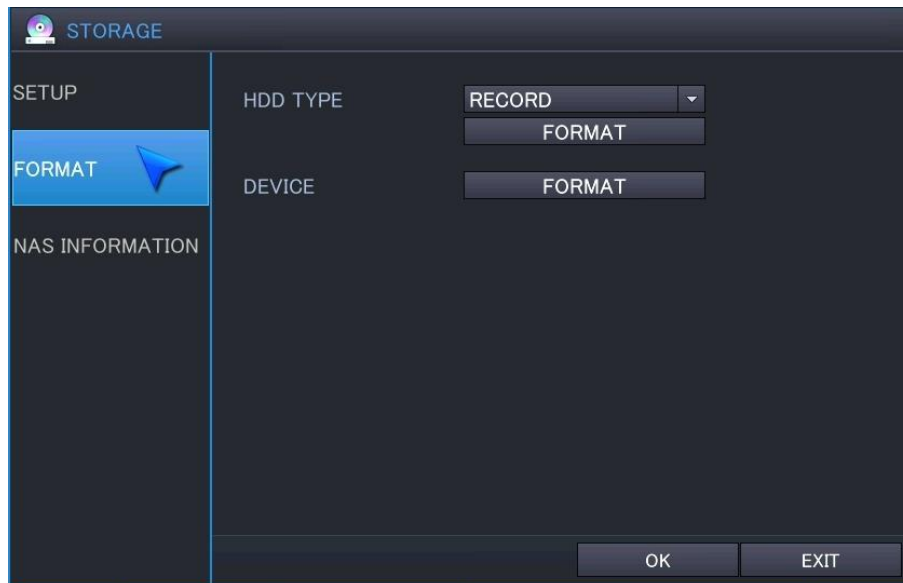
- Record:
Select the HDD as record HDD.
- Mirror:
Select the HDD as mirroring HDD.
- SMART:
You can view the HDD's configuration:



HDD 2 S.M.A.R.T. RESULT						
GOOD						
ENTRY	CURRENT	WORST	RAW	TYPE	UPDATE	
RAW READ ERROR RATE	117	99	52134	Pre-fail	Always	
SPINUP TIME	98	97	0	Pre-fail	Always	
START/STOP COUNT	100	100	630	Old-age	Always	
REALLOCATED SECTOR COUNT	100	99	29	Pre-fail	Always	
SEEK ERROR RATE	72	60	56005	Pre-fail	Always	
POWER-ON HOURS COUNT	90	90	8866	Old-age	Always	
SPINUP RETRY COUNT	100	100	32	Pre-fail	Always	
POWER CYCLE COUNT	99	99	1372	Old-age	Always	
END TO END ERROR COUNT	100	100	0	Old-age	Always	
REPORTED UNCORRECTABLE ERROR	100	100	0	Old-age	Always	
REPORTED COMMAND TIMEOUTS	100	98	81	Old-age	Always	
HIGH FLY WRITES	1	1	428	Old-age	Always	
AIRFLOW TEMPERATURE	58	53	42	Old-age	Always	
HDA TEMPERATURE	42	47	42	Old-age	Always	
HARDWARE ECC RECORVED	57	38	52134	Old-age	Always	
CURRENT PENDING SECTOR COUNT	100	100	0	Old-age	Always	
UNCORRECTABLE SECTOR COUNT	100	100	0	Old-age	Offline	
UDMA_CRC ERROR RATE	200	200	6	Old-age	Always	

Good = The current HDD condition is good.
Bad = The current HDD condition is bad.

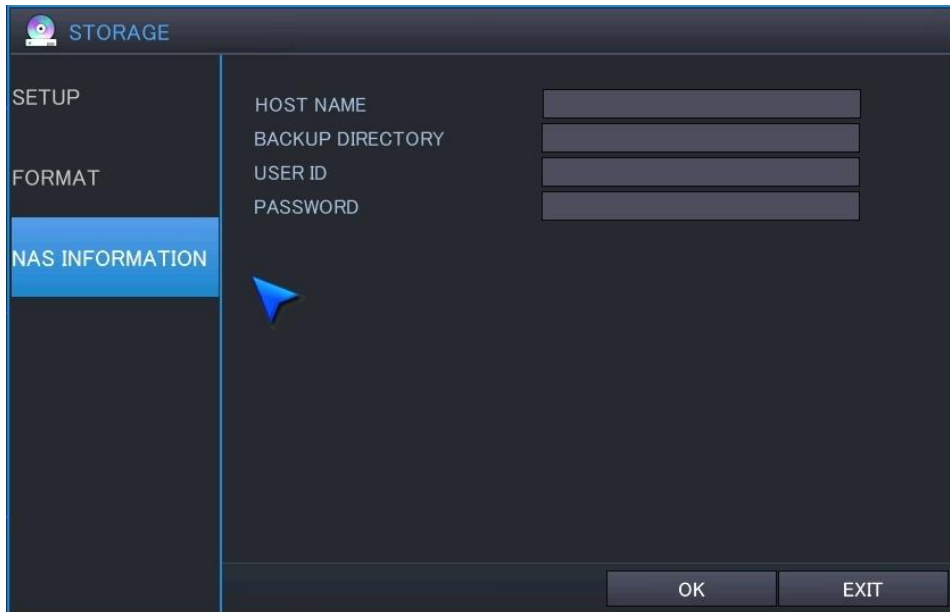
7.3.2 Format



The following settings can be adjusted:

- HDD type:
You can select „Record“ or „Mirror“.
Click on „Format“ to format the HDD.
Attention: Formatting a HDD means to delete all stored data on the HDD.
- Device:
Select this option if you wish to format a connected device, e.g. a USD stick. Click on “Format”.
Attention: Formatting a stick means to delete all stored data on the stick.

7.3.3 NAS Information

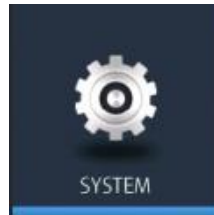


The screenshot shows a dark-themed configuration window titled "STORAGE". On the left is a vertical menu with options: "SETUP", "FORMAT", and "NAS INFORMATION" (which is highlighted in blue). The main area contains four input fields: "HOST NAME", "BACKUP DIRECTORY", "USER ID", and "PASSWORD". A blue mouse cursor is pointing at the "NAS INFORMATION" menu item. At the bottom right, there are "OK" and "EXIT" buttons.

Here you can provide the following information on the NAS server:

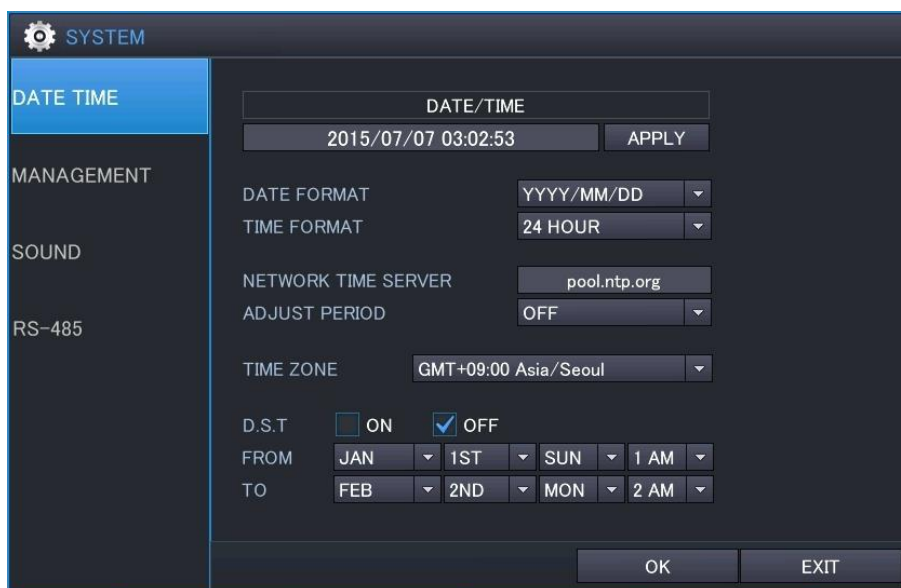
- Host name:
IP-address of the NAS server.
- Backup directory:
Directory in the NAS server
- User ID, password:
User name and password to login to the NAS server.

7.4 System



Click on the system symbol.

7.4.1 Date and time

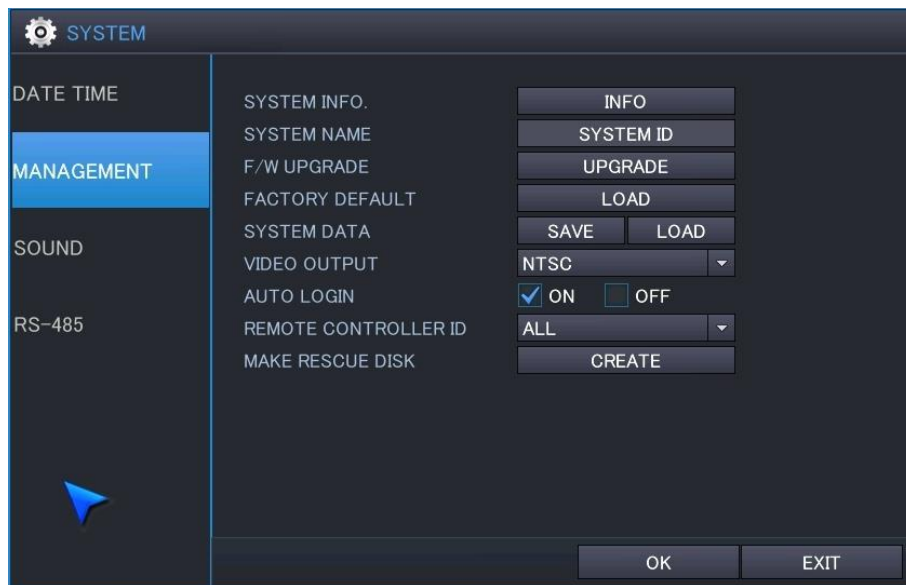


The following settings can be adjusted:

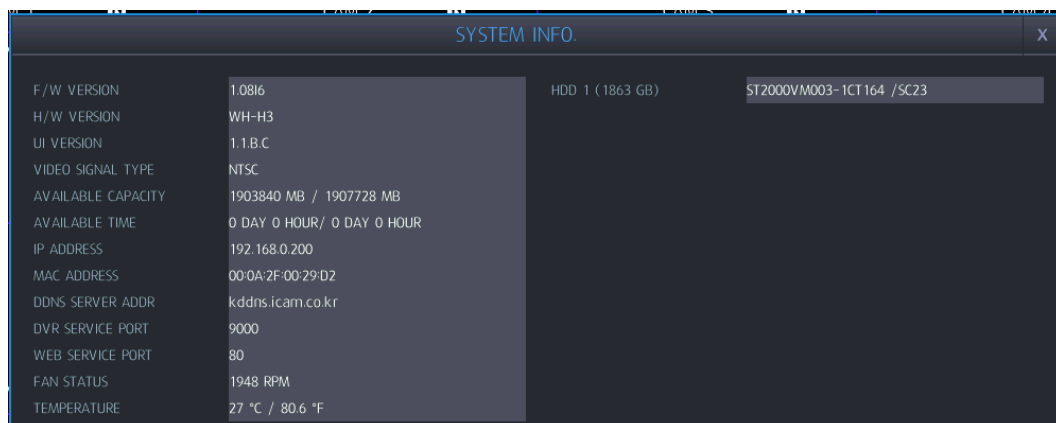
- Date/time:
Enter the correct date and time and confirm by clicking „Apply“.
- Date format:
Determine how the date is to be displayed.
- Time format:
Determine how the time is to be displayed.
- NTP (Network Time Server):
If the recorder is connected to the Internet, you can synchronize the date and time with the NTP server.

- **Adjust period:**
Define whether the recorder is to synchronize with the NTP server and enter the interval.
- **Time zone:**
Select your time zone.
- **DST:**
When set to „On“, the recorder will automatically adjust the time by one hour regarding start and end of Daylight Savings Time. Please enter the start and end dates for DST.

7.4.2 Management

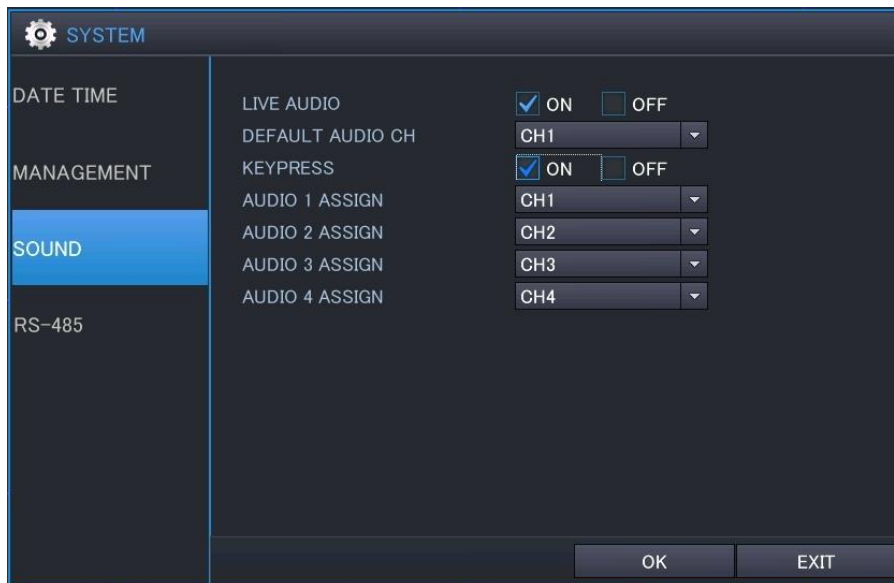


- **System info:**
Click on „Info“. The following system information is displayed (no entries/changes can be made here):



- **System name:**
Double-click on „System ID“ to bring-up the virtual keyboard. Now enter a name (max. 15 characters). Confirm your entry by clicking “Enter” on the virtual keyboard.
- **F/W upgrade:**
You can use a USB stick to perform a firmware update.
- **Factory default:**
Click on „Load“ to restore the settings to factory default settings.
- **System data:**
The system data can be saved to a USB stick. This data can be reloaded later to the recorder or to another one.
- **Video output:**
Select the video signal (PAL, NTSC).
- **Auto login:**
If enabled, you don't need to enter your password during the logon.
- **Remote controlled ID:**
No function.
- **Make rescue disk:**
 - a. How to create a recovery disk:
 - Plug-in the prepared USB stick in the USB port.
 - Click on „Create“.
 - b. How to recover:
 - Disconnect the HDD disk of the recorder.
 - Plug-in the prepared USB stick in the USB port.
 - Turn the recorder on. The recorder will load the system from the recovery disk.

7.4.3 Audio



The following settings can be adjusted:

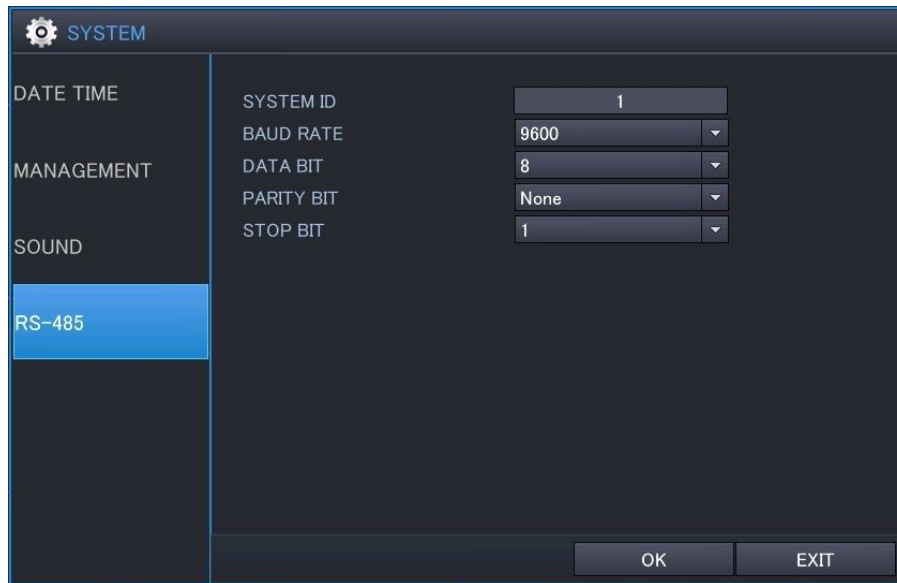
- Live audio:
If enabled, audio is activated in the live image.
- default audio channel:
Specify which one of the four audio inputs is routed to the audio output.
- Audio 1-4 assign:
Synchronisation of audio and video channels.

Important: Legal note



Monitoring, recording and storage of video surveillance data (images, audio), is subject to strict legal regulations. Please respect the Data Privacy Act which applies to your country.

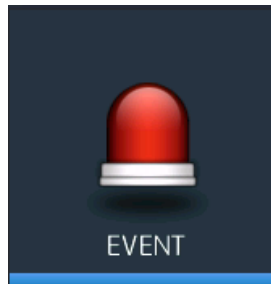
7.4.4 RS-485



The following RS-485 settings can be adjusted:

- **System ID:**
Define an ID for the external device connected to the RS-485 port.
- **Baud rate:**
Define a Baud Rate for the external device connected to the RS-485 port.
- **Data bit:**
Define a data bit rate for the external device connected to the RS-485 port.
- **Parity bit:**
Define the parity rate for the external device connected to the RS-485 port.
- **Stop bit:**
Define the stop bit rate for the external device connected to the RS-485 port.

7.5 Event



Click on the event symbol.

7.5.1 Sensor input

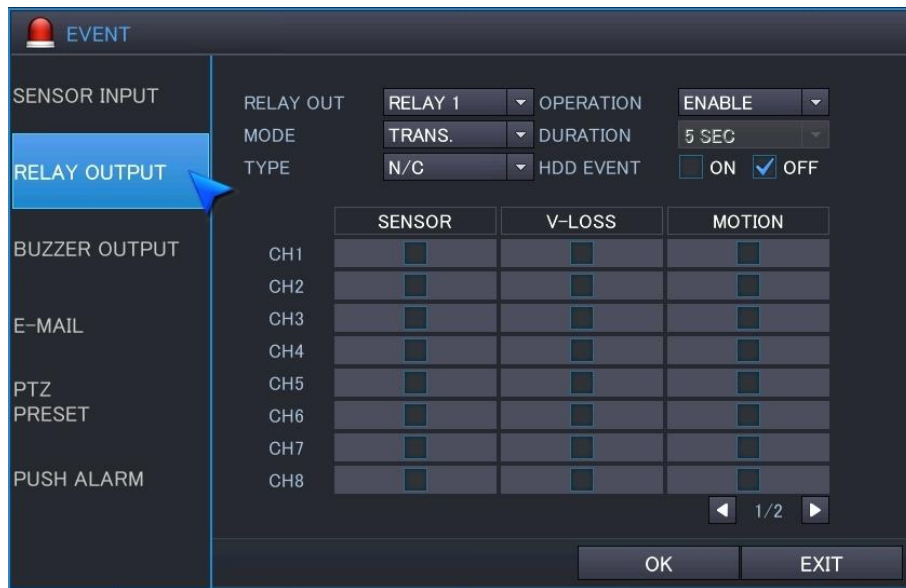


The screenshot shows the 'EVENT' configuration screen. On the left is a vertical menu with options: SENSOR INPUT (highlighted), RELAY OUTPUT, BUZZER OUTPUT, E-MAIL, PTZ PRESET, and PUSH ALARM. The main area contains a table with 8 channels (CH1-CH8). Each channel has three columns: OPERATION (set to 'DISABLE'), TYPE (set to 'N/O'), and TEXT (set to 'ALARM1' through 'ALARM8'). A blue mouse cursor is pointing at the 'TYPE' dropdown for CH4. At the bottom right of the table area, there are navigation arrows and the text '1/2'. At the very bottom of the screen are 'OK' and 'EXIT' buttons.

	OPERATION	TYPE	TEXT
CH1	DISABLE	N/O	ALARM1
CH2	DISABLE	N/O	ALARM2
CH3	DISABLE	N/O	ALARM3
CH4	DISABLE	N/O	ALARM4
CH5	DISABLE	N/O	ALARM5
CH6	DISABLE	N/O	ALARM6
CH7	DISABLE	N/O	ALARM7
CH8	DISABLE	N/O	ALARM8

- **Operation:**
Enable or disable the sensor input per channel, i.e. action when a sensor alarm is triggered. You may also select the panic recording function for this channel.
- **Type:**
Select „Normal Open (N/O)“ or „Normal Close (N/C)“. This function is only available if you have set the alarm to “enable” or “panic recording”.
- **Text:**
Per channel and per alarm, you can define a text which is displayed on the respective channel if an alarm is triggered. Double-click in the text field to bring-up the virtual keyboard. Enter a name (max. 10 characters). Confirm your entry by clicking „Enter“ on the virtual keyboard.

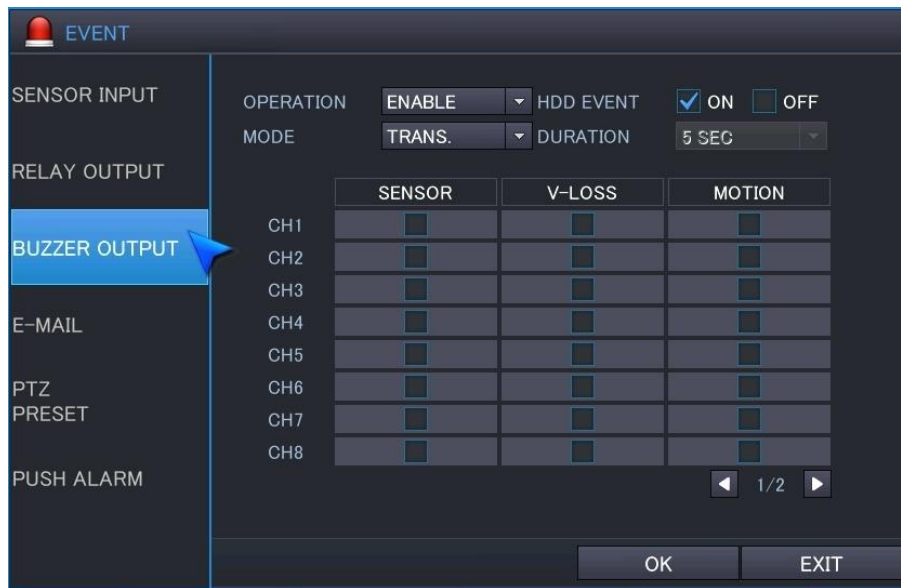
7.5.2 Relay output



The following settings can be adjusted:

- Relay out:
Define the relay for the alarm output.
- Operation:
Enable/disable the alarm output.
- Mode:
 - Transparent: Keep the relay output until the event trigger has stopped.
 - Latched: Keep the relay output for the defined duration.
- Duration:
If the alarm output mode is set to „Latched“, you can configure the duration for the relay output.
- HDD event:
If enabled, the relay output will be started in case of a HDD event.
- Sensor / video loss / motion:
Tick the desired box per channel if a relay output should be activated.

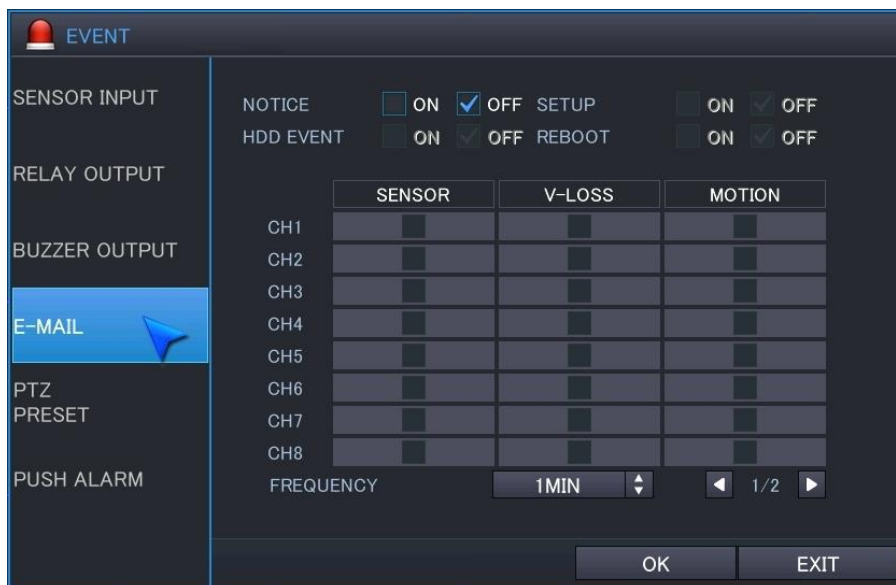
7.5.3 Buzzer output



The following settings can be adjusted:

- Operation:
Enable/disable the buzzer.
- HDD event:
If enabled, the buzzer will be active in case of a HDD event.
- Mode:
 - Transparent: Keep the relay output until the event trigger has stopped.
 - Latched: Keep the relay output for the defined duration.
- Duration:
If the alarm output mode is set to „Latched“, you can configure the duration for the relay output.
- HDD event:
If enabled, the relay output will be started in case of a HDD event.
- Sensor / video loss / motion:
Tick the desired box per channel if a relay output should be activated.

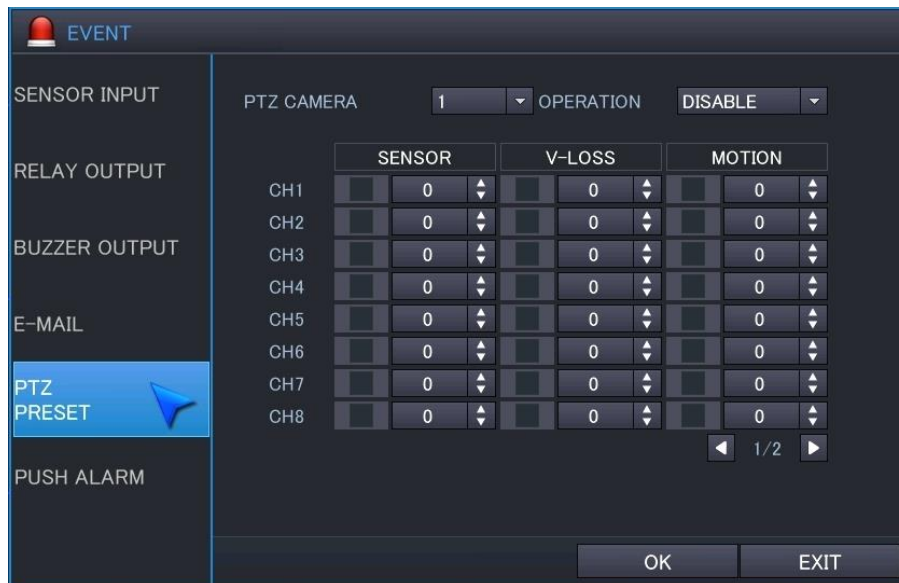
7.5.4 E-mail



The following settings can be adjusted:

- **Notice:**
If enabled, an e-mail will be sent when an alarm is triggered.
In addition, an e-mail server has to be installed in your network settings. This e-mail address has to be entered there and the box "Send e-mail" has to be activated.
Example: To receive an e-mail in case of an alarm, it is required to enable the tab „Schedule“ in the recording setup page.
- **Setup:**
If enabled, an e-mail is sent when menu settings are changed.
- **HDD event:**
If enabled, an e-mail is sent when a HDD event is triggered.
- **Reboot:**
If enabled, an e-mail is sent when the recorder is rebooting.
- **Sensor / video loss / motion:**
If an alarm is triggered on the respective channel, an e-mail will be sent.
- **Frequency:**
1-60 min. Depending on how often an alarm occurs in the defined period, an e-mail will be sent.
Example: 10 minutes:
If an alarm occurs three times within 10 minutes, only one e-mail will be sent but including the information on all three alarm types.

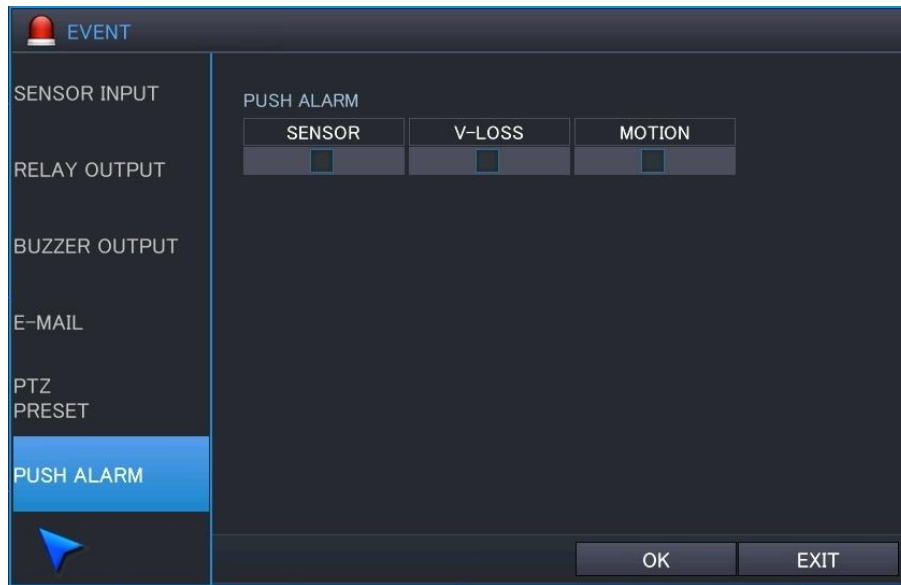
7.5.5 PTZ preset



The following settings can be adjusted:

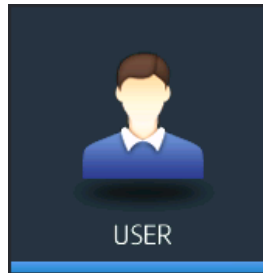
- PTZ camera:
Select the PTZ camera to which the following configurations are to be applied.
- Operation:
Enable/disable the PTZ preset function.
- Sensor:
Determine presets (0-255) if an alarm is triggered.
- Video loss:
Determine presets (0-255) if a video loss occurs.
- Motion:
Determine presets (0-255) if motion is detected.

7.5.6 Push Alarm



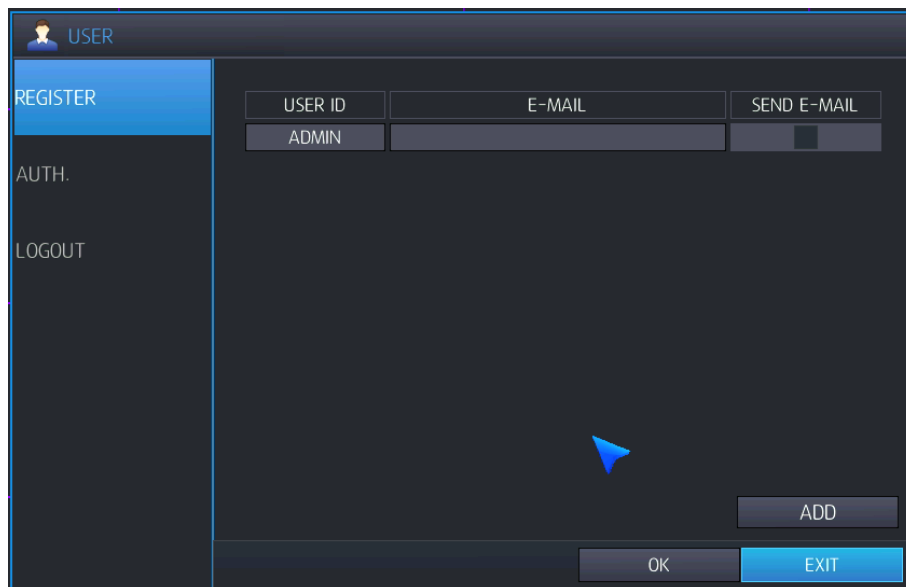
Determine whether an e-mail notification is sent in case of a sensor alarm, a video loss or a motion detection.

7.6 User



Click on the user symbol.

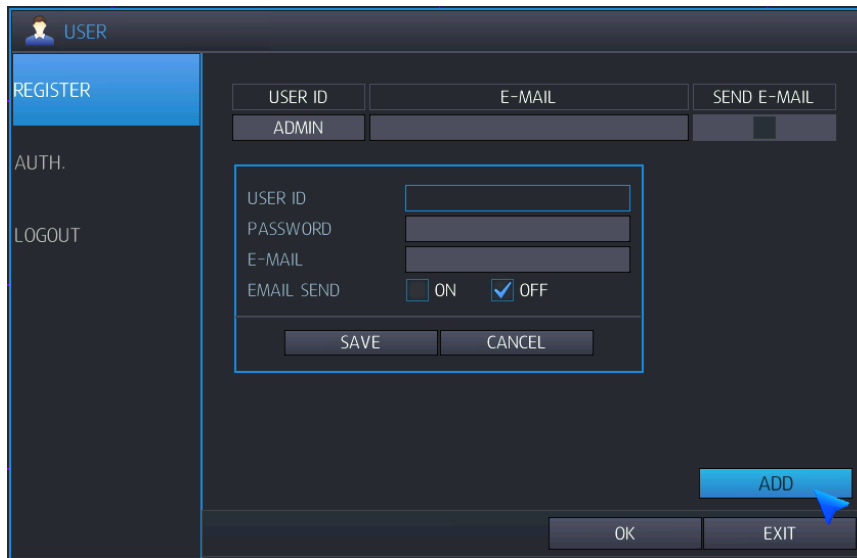
7.6.1 Register

A screenshot of a user registration interface. The window title is "USER" with a small user icon. On the left, there is a vertical menu with "REGISTER" (highlighted in blue), "AUTH.", and "LOGOUT". The main area contains a table with three columns: "USER ID", "E-MAIL", and "SEND E-MAIL". The "USER ID" column has a text input field containing "ADMIN". Below the table is an "ADD" button. At the bottom of the window are "OK" and "EXIT" buttons.

USER ID	E-MAIL	SEND E-MAIL
ADMIN		<input type="checkbox"/>

By default, the user is „ADMIN“ and the password is „1234“.
Up to 10 user accounts can be created.

Double-click on the user (or, alternatively, in the e-mail field) to bring-up the following window:



The screenshot shows a software interface titled "USER" with a user icon. On the left is a vertical menu with "REGISTER" (highlighted in blue), "AUTH.", and "LOGOUT". The main area contains a registration form with the following fields and controls:

- USER ID: ADMIN
- E-MAIL: [Empty field]
- SEND E-MAIL: [Unchecked checkbox]
- USER ID: [Empty field]
- PASSWORD: [Field with dots]
- E-MAIL: [Empty field]
- EMAIL SEND: ON OFF
- SAVE and CANCEL buttons
- ADD button (highlighted in blue with a mouse cursor)
- OK and EXIT buttons at the bottom right

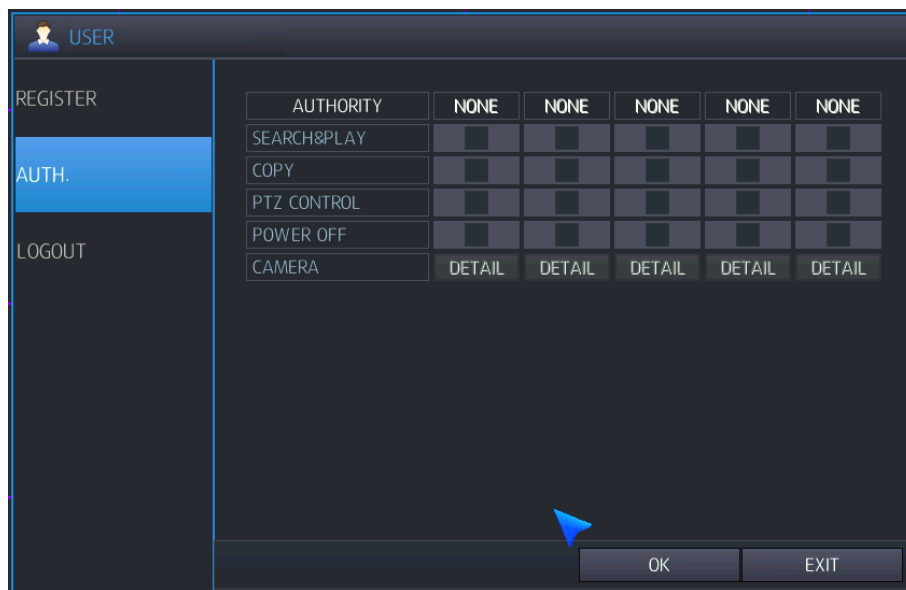
The user ID is indicated. The password is hidden by dots. If you enable "E-mail send" you can double-click in the e-mail field to bring-up the virtual keyboard and make your entry.

Double-click on the password to bring-up the virtual keyboard and to change the password.

Note:

All users, except for the administrator, can be deleted.

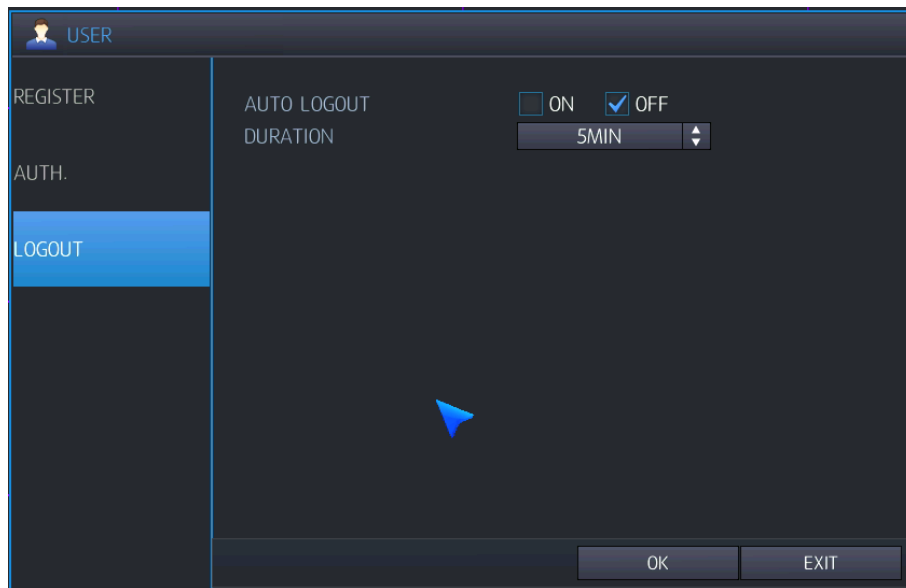
7.6.2 Authority



The following settings can be adjusted by ticking the respective boxes:

- Search & play:
The user has the authority to enter the search menu and to start playbacks.
- Copy:
The user has the authority to enter the backup menu and to make copies.
- PTZ control:
The user has the authority to enter the PTZ menu.
- Power off:
The user has the authority to switch the recorder off.
- Camera:
Click on „Detail“ to define which camera channels the user is allowed to see.

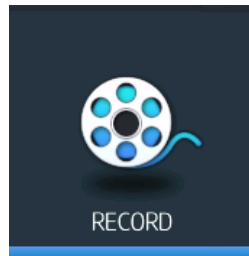
7.6.3 Logout



The following settings can be adjusted:

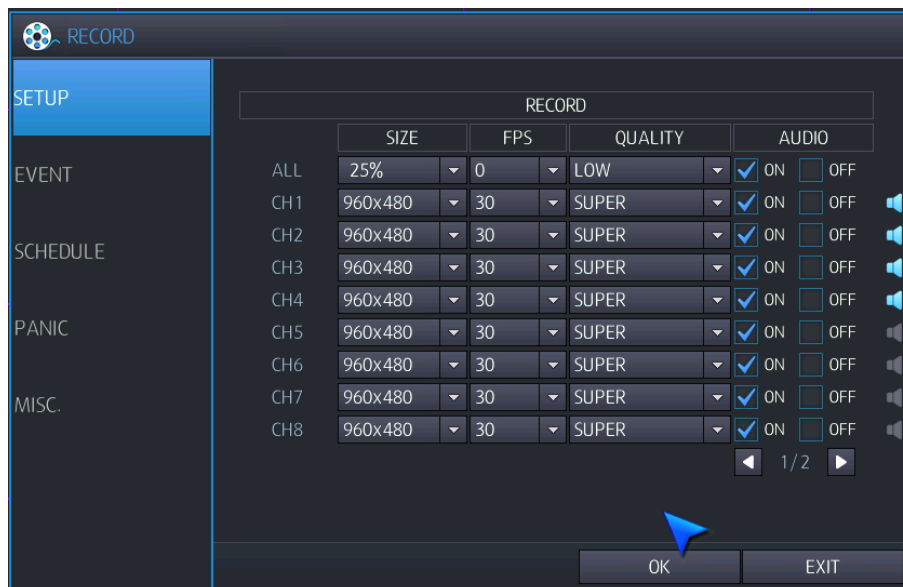
- Auto logout:
Enable/disable the automatic logout function.
- Duration:
If you have enabled the auto logout function (see above), you can define when the automatic logout should happen (after 1-99 minutes).

7.7 Record



Click on the record symbol.

7.7.1 Setup



- **Size:**
Select the individual resolution per channel. If you choose "All", the resolution will be set as follows:
 - If „All“ =25 % → Channel 1 = 940x540; other channels = 480x288
 - If „All“ = 50 % → Channel 1 = 1929x540; other channels = 960x288
 - If „All“ = 100% → Channel 1 = 1920x1080; other channels = 960x576
- **FPS:**
Set the frame rate:
NTSC: 0, 1, 2, 4, 5, 8, 10, 15, 30 frames per second.
PAL: 0, 1, 2, 4, 5, 7, 10, 13, 25 frames per second.
- **Quality:**
Low (= 2 Mbps), Standard (= 3 Mbps), High (=4 Mbps), Highest (=5 Mbps), Super (=6 Mbps)
- **Audio:**
If enabled, audio data will be recorded.

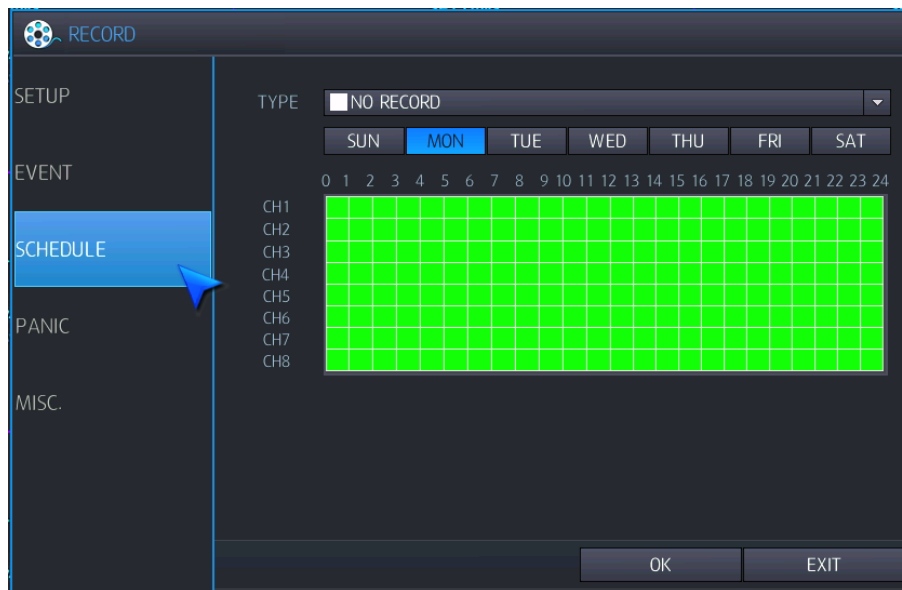
7.7.2 Event



If an event occurs, the following settings can be adjusted:

- Motion event:
In case of a detected motion, the following settings can be made:
 - FPS:
NTSC: 0, 1, 2, 4, 5, 8, 10, 15, 30 frames per second.
PAL: 0, 1, 2, 4, 5, 7, 10, 13, 25 frames per second.
 - Quality:
Choose from the following 5 levels: Low, Standard, High, Higher, Super
- Etc event:
In case of a triggered alarm or a video loss, the following settings can be made:
 - FPS:
NTSC: 0, 1, 2, 4, 5, 8, 10, 15, 30 frames per second.
PAL: 0, 1, 2, 4, 5, 7, 10, 13, 25 frames per second.
 - Quality:
Choose from the following 5 levels: Low, Standard, High, Higher, Super
- Audio:
If enabled, audio data will be recorded.

7.7.3 Schedule



The following settings can be adjusted:

Go to menu item „Misc.“ (see chapter 8.7.4) and select as schedule mode „daily“ or „weekly“.

Then return to the schedule page.

As „type“ please select the type of recording:

- No record (white)
- Continuous record (green)
- Motion record (blue)
- Alarm record (red)
- Continue & motion record (turquoise)
- Continue & alarm record (grey)
- Motion & alarm record (yellow)
- Continue & motion & alarm record (brown)

Click in the channel/time bar:

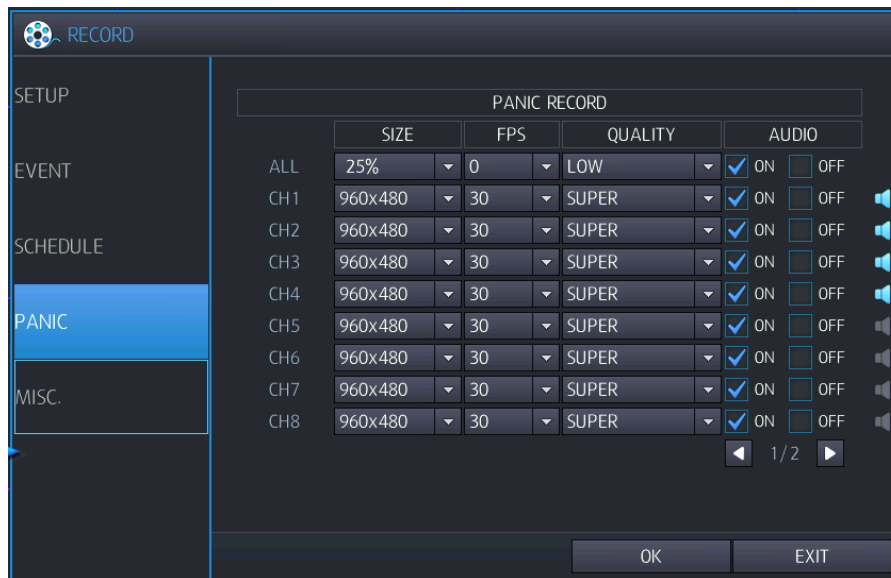
- „Daily“:
You can configure the recording type by hour (24 hours) and by channel; click in the respective grid cell. This mode assumes that all days have the same recording schedule regardless of the day of the week.

- „Weekly“:
You can configure the recording type by hour (24 hours) and by channel; click in the respective grid cell. In this mode, you can configure a separate schedule for every single day of the week.

Note on e-mail notification:

If an e-mail notification is to be sent in case of a detected motion, you have to enable the schedule for motion detection for the respective camera.

7.7.4 Panic

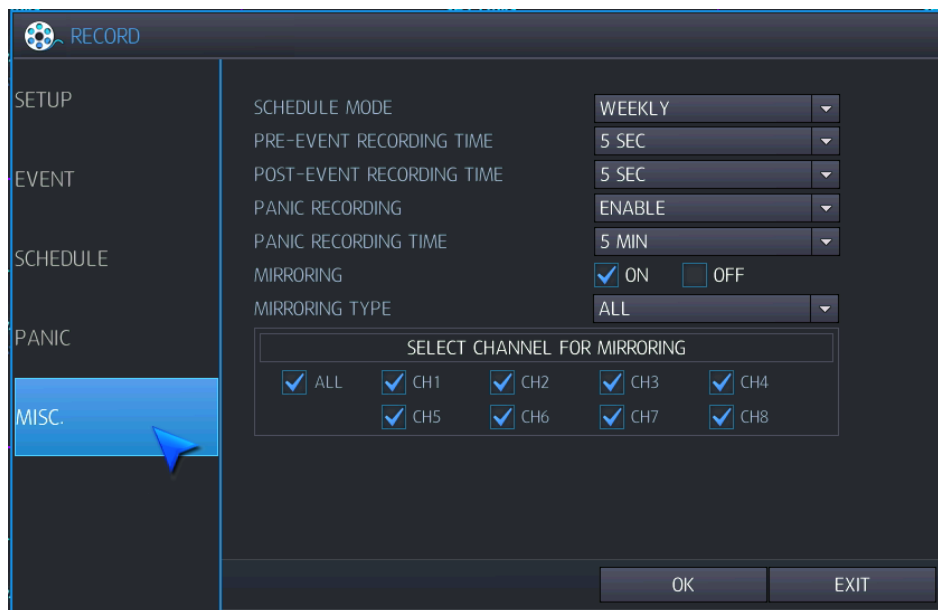


During panic recording, all other recordings will be stopped. The panic recording will run on all channels according to the below specified settings:

- **Size:**
Select the individual resolution per channel. If you choose "All", the resolution will be set as follows:
 - If „All“ =25 % → Channel 1 = 940x540; other channels = 480x288
 - If „All“ = 50 % → Channel 1 = 1929x540; other channels = 960x288
 - If „All“ = 100% → Channel 1 = 1920x1080; other channels = 960x576
- **FPS:**
Define the frame rate:
NTSC: 0, 1, 2, 4, 5, 8, 10, 15, 30 frames per second.
PAL: 0, 1, 2, 4, 5, 7, 10, 13, 25 frames per second.
- **Quality:**
Low (= 2 Mbps), Standard (= 3 Mbps), High (=4 Mbps), Highest (=5 Mbps), Super (=6 Mbps)
- **Audio:**
If enabled, audio data will be recorded.

Please also read chapter 7.7.5 for further panic recording settings (e.g. recording time).

7.7.5 Miscellaneous

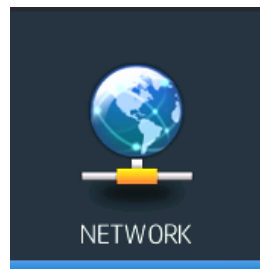


- Schedule mode:
Select „daily“ or „weekly“. This information is important for schedule definition (also see chapter 8.7.3.)
- Pre-event recording time:
Define the amount of footage that is always recorded before an event occurs (0-5 seconds).
- Post-event recording time:
Define how long the recording continues after an event has occurred (5-180 seconds).
- Panic recording:
Enable/disable the panic recording.
- Panic recording time:
Define how long the panic recording lasts (3-60 minutes).
- Mirroring:
Enable/disable the mirroring recording mode.
If enabled, the following settings can be adjusted:
 - Mirroring on:
Select „event“ (only event data will be recorded to the mirroring HDD) or „all“ (all data will be recorded to the mirroring HDD).
 - Channel selection for mirroring:
Select one or several channels or all of them.

Note:

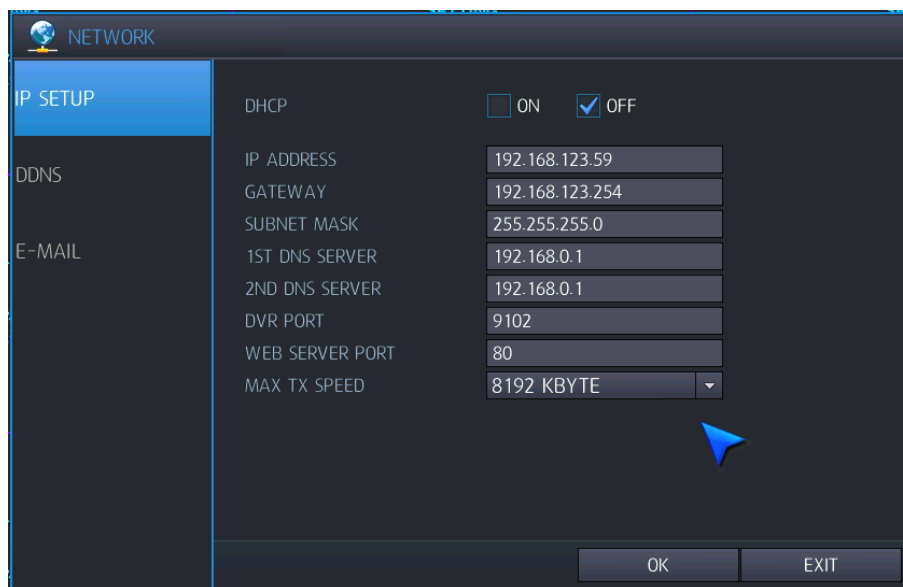
Please also see chapter 7.7.4 for further details on panic recording.

7.8 Network



Click on the network symbol.

7.8.1 IP setup



The following settings can be adjusted:

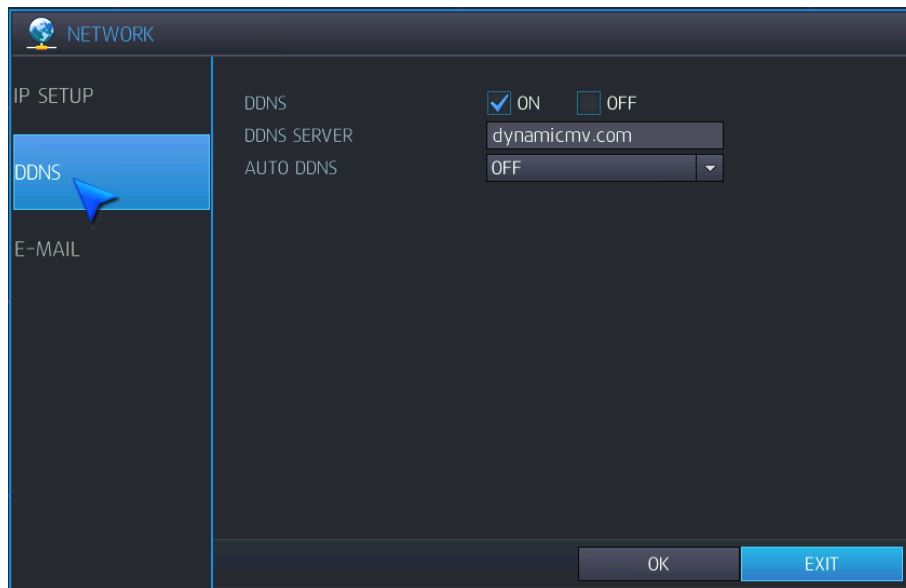
- **DHCP:**
If DHCP is enabled, the recorder will obtain an Ethernet IP address automatically if connected to a DHCP server or router.
If DHCP is disabled, you can assign your own IP address, gateway and subnet mask. Double-click into the respective field and use the virtual keyboard to make your entries.

- IP address:
If DHCP is disabled, enter an IP address here manually.
- Gateway:
If DHCP is disabled, enter a gateway here manually.
- Subnet mask:
If DHCP is disabled, enter a subnet mask here manually.
- 1st DNS server:
If DHCP is disabled, enter the first DNS server here manually.
- 2nd DNS server:
If DHCP is disabled, enter the second DNS server here manually
- DVR port:
Port number of the recorder to support the remote software.
- Web server port:
Port number of the recorder to support the remote software via the Internet Explorer or other web browsers.
- Max. TX speed:
Define the maximum bandwidth that the recorder can use during a remote connection.

Note:

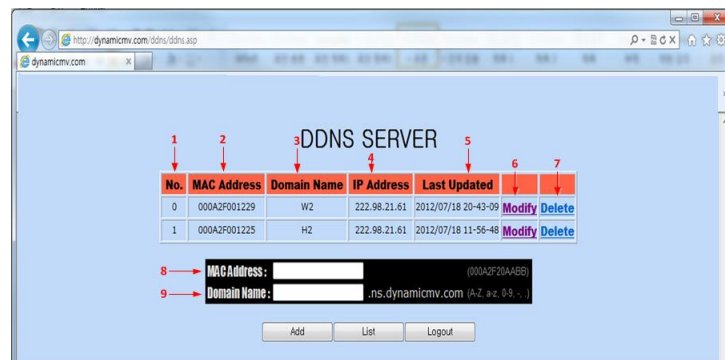
The recorder and the web server port require a firewall for remote connection. UPNP (Auto Port Forwarding) is always active in the background.

7.8.2 DDNS



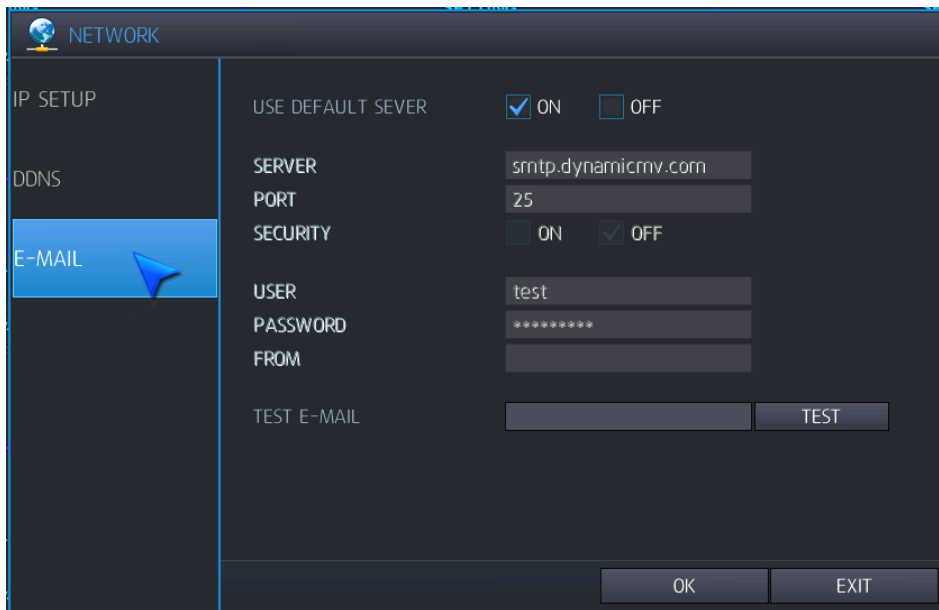
The following settings can be adjusted:

- **DDNS:**
If DDNS is enabled, the recorder can be accessed through a dynamic DNS server. This is commonly used if a broadband connection does not have a static IP address.
- **DDNS server:**
DDNS servers name.
- **Auto DDNS:**
The recorder automatically registers at a DDNS server.
Enter the following address in your web browser:
`http://dynamicmv.com`
On this page, you can create a user account. Also enter the Mac address of the recorder.



The registration process may take up to 15 minutes.

7.8.3. E-mail



The following settings can be adjusted:

- Use default server:
If enabled, e-mail notifications will be sent by your own mail server.
- Server:
SMTP outbound e-mail server which should be used to send e-mail notifications.
- Port:
Outbound e-mail port number
- Security:
If disabled, the server does not require a user name and password to connect.
- User:
Enter a user name to identify the recorder in the e-mail notification.
- Password:
If „security“ has been enabled, enter the password here.
- From:
Enter an e-mail address or text here.
- Test e-mail:
Send a test e-mail to verify the delivery.
- Test:
Click on „Test“ to send a test e-mail.

8. Remote access

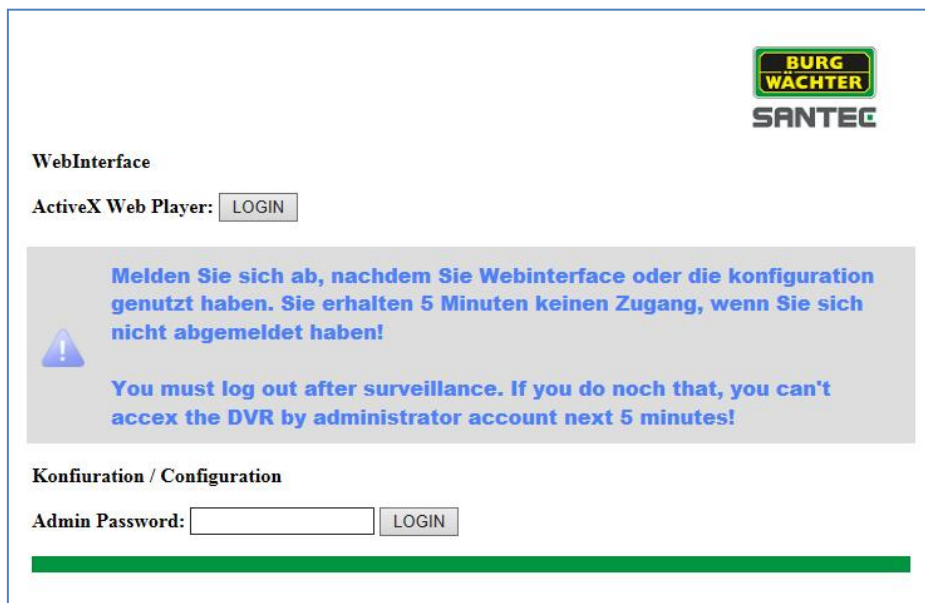
There are several options to access the recorder remotely:
Either by using the web server or by using a smart phone (Android Viewer, iOS Viewer).

8.1 Remote access via web server

The recorder prepares the web server internally. This server consists of two services. One is for the remote configuration of DVR setup and the other is for the client viewer based on the ActiveX.

Using the remote configuration, you can configure all feature sets of recorder. And the live preview, search and PTZ control can be served by the WebViewer.

To access the web interface a web browser such as Microsoft Internet Explorer or similar is required.



The screenshot shows a web interface with the following elements:

- WebInterface** section with an **ActiveX Web Player:** LOGIN button.
- A central warning box with a blue triangle icon and text: **Melden Sie sich ab, nachdem Sie Webinterface oder die konfiguration genutzt haben. Sie erhalten 5 Minuten keinen Zugang, wenn Sie sich nicht abgemeldet haben!** and **You must log out after surveillance. If you do noch that, you can't acces the DVR by administrator account next 5 minutes!**
- Konfiuration / Configuration** section with an **Admin Password:** LOGIN button.
- A thick green horizontal bar at the bottom.
- The **BURG WÄCHTER SANTEC** logo in the top right corner.

8.1.1 Connection to web server

Open your web browser and enter the IP address of the recorder into the address field.

Example: <http://192.168.123.54:80>

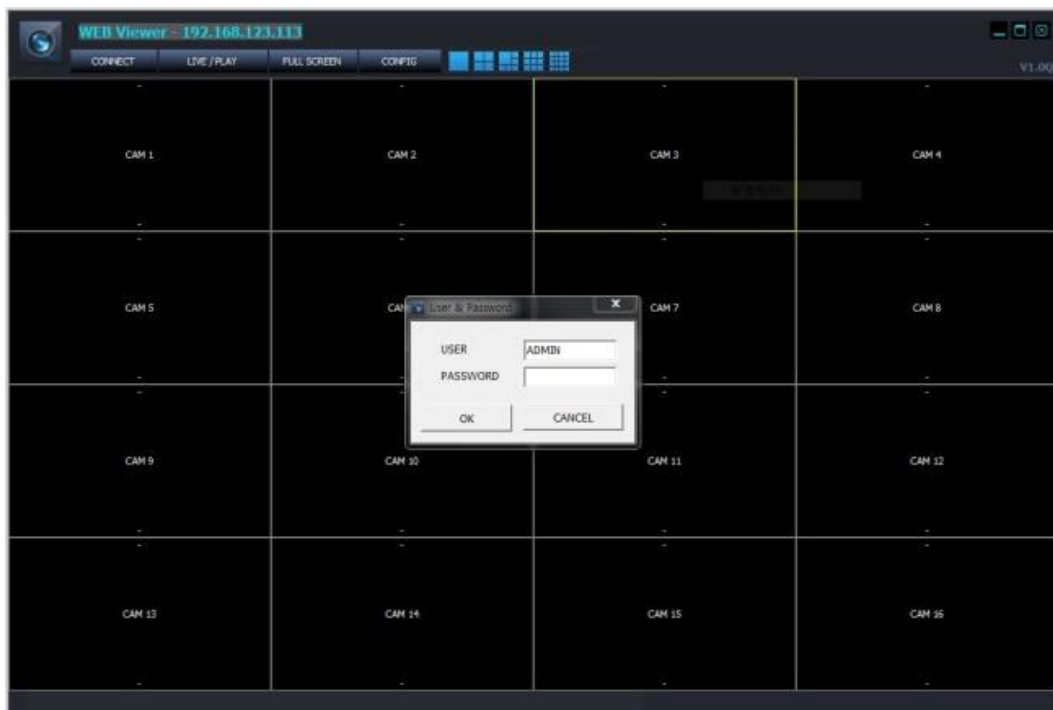
You will find the recorder's IP address and web server port here:

System → *Management* → *System Info* → *Info*
(also see chapter 7.4.2)

as well as here:

Network → *IP settings*
(also see chapter 7.8.1)

1. As url, enter the recorder's IP address.
2. Enter the recorder's administrator password (factory default: 1234).
Only users with admin rights have remote access to the recorder. Then click on "OK".
3. ActiveX based Web Viewer: By clicking on the link, the Web Viewer or the installation of the ActiveX plug-in will start (please agree to the installation).



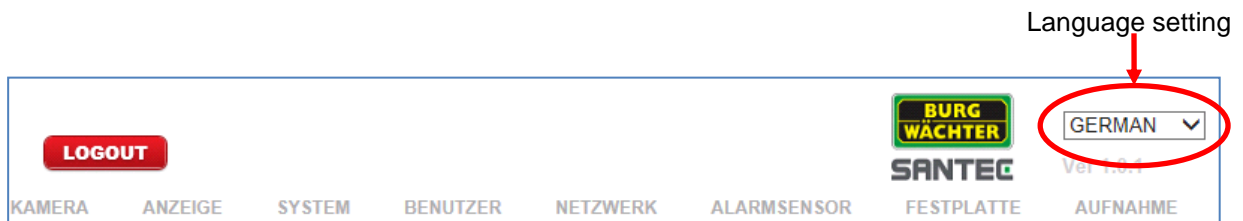
8.1.2 Configuration page

Once you have called-up the recorder via the web browser (as described in chapter 8.1.1), you can configure the recorder settings via the configuration page.

Note:

The configuration page will automatically close again if you have been idle for 5 minutes after login.

The menu on the configuration page is identical to the menu structure in the recorder itself. The layout and design is a bit different though, but the menu items and the setting options are mainly identical.

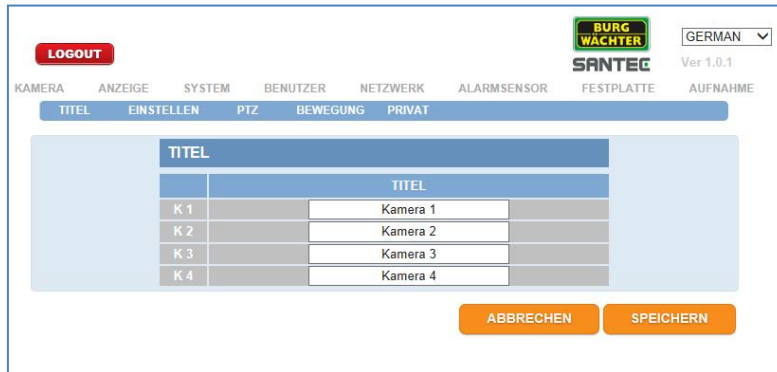


On the configuration page, you will find the following menu items – identical to the menu items on the recorder itself:

- Camera
- Display
- System
- User
- Network
- Event
- Storage
- Record

8.1.2.1 Camera

Title:



LOGOUT BURG WÄCHTER
SANTEC Ver 1.0.1 GERMAN ▾

KAMERA ANZEIGE SYSTEM BENUTZER NETZWERK ALARMSENSOR FESTPLATTE AUFNAHME

TITEL EINSTELLEN PTZ BEWEGUNG PRIVAT

TITEL	
	TITEL
K 1	Kamera 1
K 2	Kamera 2
K 3	Kamera 3
K 4	Kamera 4

ABBRECHEN SPEICHERN

For setting options and descriptions please see chapter 7.1.1.

Setup:



LOGOUT BURG WÄCHTER
SANTEC Ver 1.0.1 GERMAN ▾

KAMERA ANZEIGE SYSTEM BENUTZER NETZWERK ALARMSENSOR FESTPLATTE AUFNAHME

TITEL EINSTELLEN PTZ BEWEGUNG PRIVAT

CH				
	HELLIGKEIT	KONTRAST	FARBTON	SÄTTIGUNG
K 1	50 ▾	50 ▾	50 ▾	50 ▾
K 2	50 ▾	50 ▾	50 ▾	50 ▾
K 3	50 ▾	50 ▾	50 ▾	50 ▾
K 4	50 ▾	50 ▾	50 ▾	50 ▾

ABBRECHEN SPEICHERN

For setting options and descriptions please see chapter 7.1.2.

PTZ:



LOGOUT BURG WÄCHTER
SANTEC Ver 1.0.1 GERMAN ▾

KAMERA ANZEIGE SYSTEM BENUTZER NETZWERK ALARMSENSOR FESTPLATTE AUFNAHME

TITEL EINSTELLEN PTZ BEWEGUNG PRIVAT

	HAUPT-EINSTELLUNGEN			AUTO		GESCHWINDIGKEIT			
	ADRESSE	PROTOKOLL	BAUDRATE	FOKUS	IRIS	P/T	ZOOM	FOKUS	IRIS
K 1	0	PELCO-D ▾	9600 ▾	AN ▾	AN ▾	5 ▾	5 ▾	5 ▾	5 ▾
K 2	0	PELCO-D ▾	9600 ▾	AN ▾	AN ▾	5 ▾	5 ▾	5 ▾	5 ▾
K 3	0	PELCO-D ▾	9600 ▾	AN ▾	AN ▾	5 ▾	5 ▾	5 ▾	5 ▾
K 4	0	PELCO-D ▾	9600 ▾	AN ▾	AN ▾	5 ▾	5 ▾	5 ▾	5 ▾

ABBRECHEN SPEICHERN

For setting options and descriptions please see chapter 7.1.3.

Motion:



For setting options and descriptions please see chapter Kapitel 7.1.4.

Privacy masking:



For setting options and descriptions please see chapter Kapitel 7.1.5.

8.1.2.2 Display

OSD:



The screenshot shows the OSD configuration menu. At the top, there is a 'LOGOUT' button and the 'BURG WÄCHTER SANTEC' logo with a language dropdown set to 'GERMAN' and version 'Ver 1.0.1'. Below the logo is a navigation bar with tabs: 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. Under 'ANZEIGE', there are sub-tabs: 'OSD', 'MONITOR', 'SEQ.', and 'SPOT'. The 'OSD' sub-tab is selected, and the menu title 'OSD' is highlighted in blue. The configuration table is as follows:

TOOLBAR ANZEIGEDAUER	10 SEK	▼
KAMERA NAME	AN	▼
AUFNAHMEMODUS SYMBOL	AN	▼
RAHMEN	AN	▼
RAHMENFARBE	BLAU	▼
EREIGNISSYMBOL	AN	▼
SPRACHE	GERMAN	▼

At the bottom right, there are two orange buttons: 'ABBRECHEN' and 'SPEICHERN'.

For setting options and descriptions please see chapter 7.2.1.

Monitor:



The screenshot shows the Monitor configuration menu. The layout is identical to the OSD menu, but the 'MONITOR' sub-tab is selected and highlighted in blue. The configuration table is as follows:

ALARM POP-UP MODUS	AUS	▼
ALARM POP-UP VERWEILZEIT	5 SEK	▼
BEWEGUNG POP-UP MODUS	AUS	▼
BEWEGUNG POP-UP VERWEILZEIT	5 SEK	▼
VIDEOAUSGANG AUFÖSUNG	1080p	▼

At the bottom right, there are two orange buttons: 'ABBRECHEN' and 'SPEICHERN'.

For setting options and descriptions please see chapter 7.2.2.

Sequence:



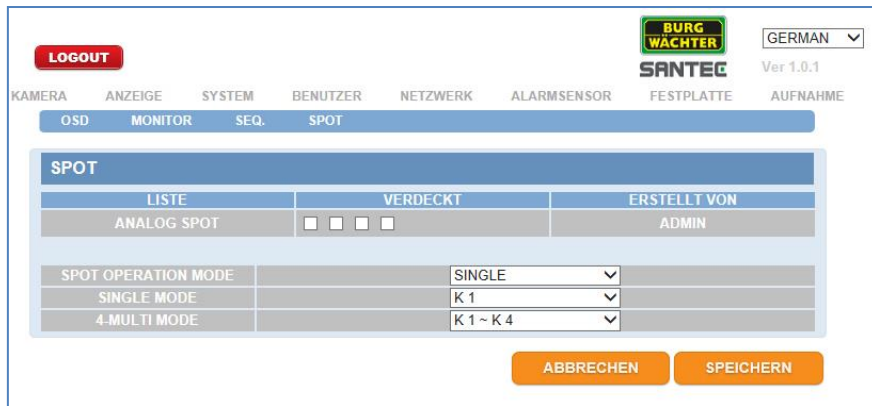
The screenshot shows the Sequence configuration menu. The layout is identical to the previous menus, but the 'SEQ.' sub-tab is selected and highlighted in blue. The configuration table is as follows:

SEQUENZ VERWEILZEIT	5 SEK	▼
SPOT SEQ VERWEILZEIT	5 SEK	▼

At the bottom right, there are two orange buttons: 'ABBRECHEN' and 'SPEICHERN'.

For setting options and descriptions please see chapter 7.2.3.

Spot:



BURG WÄCHTER
 SANTEC
 GERMAN
 Ver 1.0.1

KAMERA ANZEIGE SYSTEM BENUTZER NETZWERK ALARMSENSOR FESTPLATTE AUFNAHME
 OSD MONITOR SEQ. SPOT

SPOT

LISTE	VERDECKT	ERSTELLT VON
ANALOG SPOT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	ADMIN

SPOT OPERATION MODE: SINGLE
 SINGLE MODE: K 1
 4-MULTI MODE: K 1 ~ K 4

ABBRECHEN SPEICHERN

For setting options and descriptions please see chapter 7.2.4.

8.1.2.3 System

Date/time:



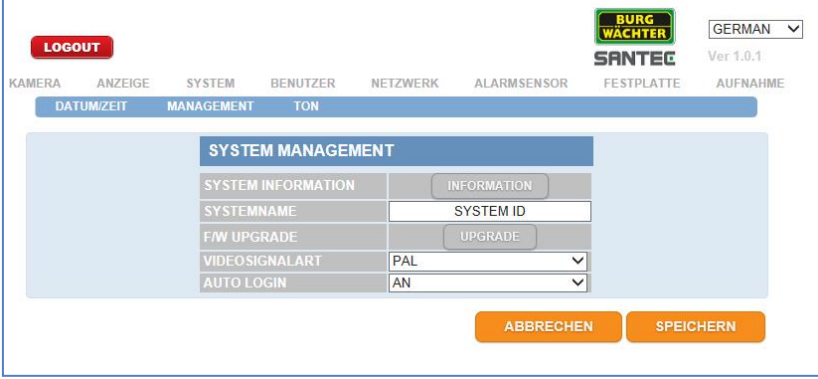
The screenshot shows the 'DATUM/ZEIT' configuration page. It includes a 'LOGOUT' button, the 'BURG WÄCHTER SANTEC' logo, and a language dropdown set to 'GERMAN'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'DATUM/ZEIT' sub-menu is active. The configuration table is as follows:

DATUM/ZEIT	
DATUMZEIT	2014/03/24 13:57:41
DATUM FORMAT	DD/MM/YYYY
ZEIT FORMAT	24 STD
NTP	pool.ntp.org
INTERVALL	AUS
ZEITZONE	GMT+01:00 Europe/Berlin
D.S.T.	AN
VON	MARZ
LETZT	LETZT
SO	SO
3 AM	3 AM
BIS	OKT
LETZT	LETZT
SO	SO
3 AM	3 AM

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter Kapitel 7.4.1.

Management:



The screenshot shows the 'SYSTEM MANAGEMENT' configuration page. It includes the same header and navigation as the previous page. The 'MANAGEMENT' sub-menu is active. The configuration table is as follows:

SYSTEM MANAGEMENT	
SYSTEM INFORMATION	INFORMATION
SYSTEMNAME	SYSTEM ID
FW UPGRADE	UPGRADE
VIDEOSIGNAL ART	PAL
AUTO LOGIN	AN

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.4.2.

Audio:



The screenshot shows the 'TON' configuration page. It includes the same header and navigation. The 'TON' sub-menu is active. The configuration table is as follows:

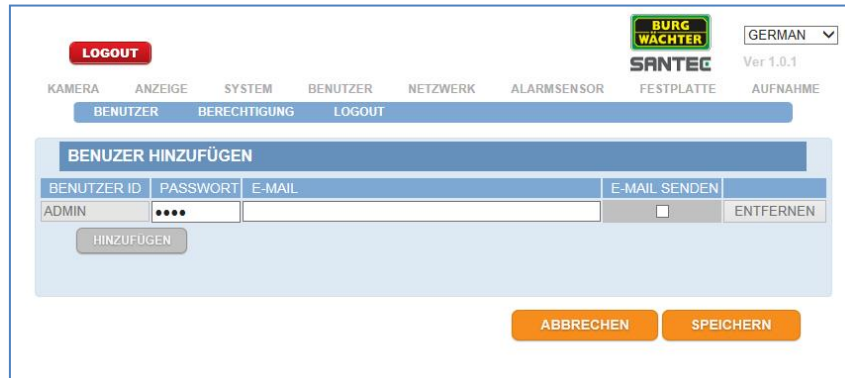
TON	
LIVE AUDIO	AN
STANDARD AUDIO KANAL	CH1

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.4.3.

8.1.2.4 User

Add user:



The screenshot shows the 'BENUTZER HINZUFÜGEN' form. At the top, there is a 'LOGOUT' button and the SANTEC logo with a language dropdown set to 'GERMAN' and version 'Ver 1.0.1'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'BENUTZER' sub-menu is active. The form has the following fields and buttons:

BENUTZER ID	PASSWORT	E-MAIL	E-MAIL SENDEN	ENTFERNEN
ADMIN	••••		<input type="checkbox"/>	

Buttons: HINZUFÜGEN, ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.6.1.

Authority:



The screenshot shows the 'BERECHTIGUNG' table. At the top, there is a 'LOGOUT' button and the SANTEC logo with a language dropdown set to 'GERMAN' and version 'Ver 1.0.1'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'BERECHTIGUNG' sub-menu is active. The table has the following structure:

RECHTE	LEER	LEER	LEER	LEER	LEER
SUCHE&WIEDERGABE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KOPIEREN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PTZ STEUERUNG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AUSSCHALTEN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KAMERA 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
KAMERA 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
KAMERA 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
KAMERA 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.6.2.

Logout:



The screenshot shows the 'LOGOUT' form. At the top, there is a 'LOGOUT' button and the SANTEC logo with a language dropdown set to 'GERMAN' and version 'Ver 1.0.1'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'LOGOUT' sub-menu is active. The form has the following fields and buttons:

AUTO LOGOUT	AUS
DAUER	5 MIN

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.6.3.

8.1.2.4 Network

IP-Einstellung:



The screenshot shows the 'IP EINSTELLUNG' (IP Configuration) page. At the top, there is a 'LOGOUT' button and a language dropdown set to 'GERMAN'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'NETZWERK' menu is expanded to show 'IP EINSTELLUNG', 'DDNS', and 'E-MAIL'. The main content area is titled 'IP EINSTELLUNG' and contains the following fields:

DHCP	AN
IP ADRESSE	192.168.10.206
GATEWAY	255.255.255.0
SUBNETZMASKE	192.168.10.1
1. DNS SERVER	SANTEC
2. DNS SERVER	8.8.8.8
DVR PORT	9000
WEB SERVER PORT	80
MAX TX GESCHWINDIGKEIT	8192 Kbyte

At the bottom right, there are two orange buttons: 'ABBRECHEN' (Cancel) and 'SPEICHERN' (Save).

For setting options and descriptions please see chapter 7.8.1.

DDNS:



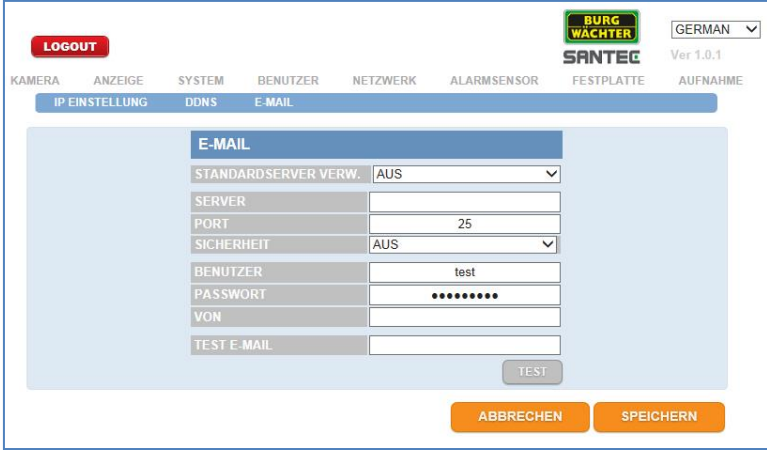
The screenshot shows the 'DDNS' (Dynamic DNS) configuration page. The layout is similar to the IP configuration page. The main content area is titled 'DDNS' and contains the following fields:

DDNS	AN
DDNS SERVER	
AUTO DDNS	AUS

At the bottom right, there are two orange buttons: 'ABBRECHEN' (Cancel) and 'SPEICHERN' (Save).

For setting options and descriptions please see chapter 7.8.2.

E-mail:



The screenshot shows the 'E-MAIL' configuration page. The layout is similar to the previous pages. The main content area is titled 'E-MAIL' and contains the following fields:

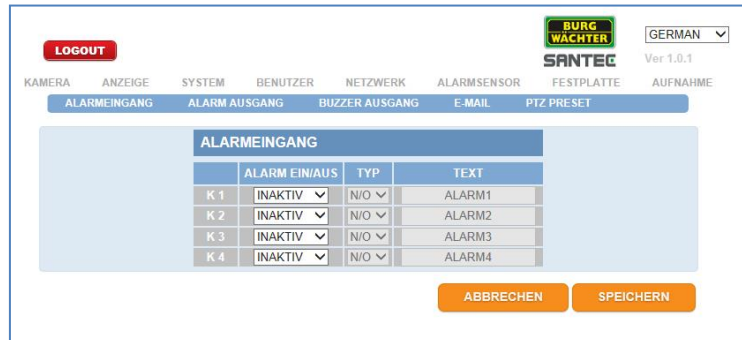
STANDARDSERVER VERW.	AUS
SERVER	
PORT	25
SICHERHEIT	AUS
BENUTZER	test
PASSWORT	*****
VON	
TEST E-MAIL	

Below the 'TEST E-MAIL' field is a 'TEST' button. At the bottom right, there are two orange buttons: 'ABBRECHEN' (Cancel) and 'SPEICHERN' (Save).

For setting options and descriptions please see chapter 7.8.3.

8.1.2.5 Event

Relay input:




The screenshot shows the 'ALARMEINGANG' configuration page. It features a navigation menu at the top with options like 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. Below the menu, there are tabs for 'ALARMEINGANG', 'ALARM AUSGANG', 'BUZZER AUSGANG', 'E-MAIL', and 'PTZ PRESET'. The main content area is titled 'ALARMEINGANG' and contains a table with columns for 'ALARM EIN/AUS', 'TYP', and 'TEXT'. There are four rows labeled 'K 1' through 'K 4'. Each row has a dropdown menu for 'ALARM EIN/AUS' (all set to 'INAKTIV'), a dropdown for 'TYP' (all set to 'N/O'), and a text input field for 'TEXT' (all set to 'ALARM1' through 'ALARM4'). At the bottom right, there are two buttons: 'ABBRECHEN' and 'SPEICHERN'.

	ALARM EIN/AUS	TYP	TEXT
K 1	INAKTIV	N/O	ALARM1
K 2	INAKTIV	N/O	ALARM2
K 3	INAKTIV	N/O	ALARM3
K 4	INAKTIV	N/O	ALARM4

For setting options and descriptions please see chapter 7.5.1.

Relay output:



The screenshot shows the 'ALARM AUSGANG' configuration page. It features a navigation menu at the top with options like 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. Below the menu, there are tabs for 'ALARMEINGANG', 'ALARM AUSGANG', 'BUZZER AUSGANG', 'E-MAIL', and 'PTZ PRESET'. The main content area is titled 'ALARM AUSGANG' and contains a table with columns for 'AUSGANG', 'MODUS', 'TYP', 'ALARM', 'VIDEO VERLUST', and 'BEWEGUNG'. There are four rows labeled 'K 1' through 'K 4'. Each row has dropdown menus for 'AUSGANG' (all set to 'RELAIS'), 'MODUS' (all set to 'ALARMAUS. N.'), and 'TYP' (all set to 'LEER'). There are also dropdown menus for 'ALARM EIN/AUS' (all set to 'AKTIV'), 'DAUER' (all set to '5 SEK'), and 'HDD EREIGNIS' (all set to 'AUS'). At the bottom right, there are two buttons: 'ABBRECHEN' and 'SPEICHERN'.

	AUSGANG	MODUS	TYP	ALARM	VIDEO VERLUST	BEWEGUNG
K 1	RELAIS	ALARMAUS. N.	LEER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 2	RELAIS	ALARMAUS. N.	LEER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 3	RELAIS	ALARMAUS. N.	LEER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 4	RELAIS	ALARMAUS. N.	LEER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For setting options and descriptions please see chapter 7.5.2.

Buzzer output:

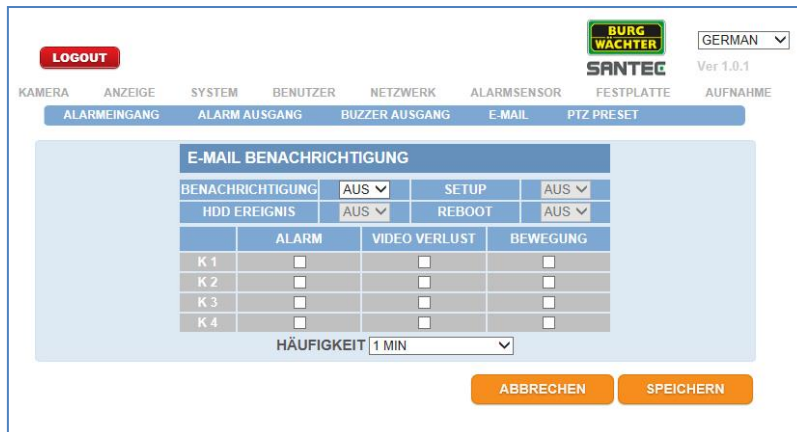


The screenshot shows the 'BUZZER AUSGANG' configuration page. It features a navigation menu at the top with options like 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. Below the menu, there are tabs for 'ALARMEINGANG', 'ALARM AUSGANG', 'BUZZER AUSGANG', 'E-MAIL', and 'PTZ PRESET'. The main content area is titled 'BUZZER AUSGANG' and contains a table with columns for 'ALARM EIN/AUS', 'MODUS', 'ALARM', 'VIDEO VERLUST', and 'BEWEGUNG'. There are four rows labeled 'K 1' through 'K 4'. Each row has dropdown menus for 'ALARM EIN/AUS' (all set to 'AKTIV'), 'MODUS' (all set to 'ALARMAUS. N.A'), and 'HDD EREIGNIS' (all set to 'AN'). There are also dropdown menus for 'DAUER' (all set to '5 SEK'). At the bottom right, there are two buttons: 'ABBRECHEN' and 'SPEICHERN'.

	ALARM EIN/AUS	MODUS	ALARM	VIDEO VERLUST	BEWEGUNG
K 1	AKTIV	ALARMAUS. N.A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 2	AKTIV	ALARMAUS. N.A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 3	AKTIV	ALARMAUS. N.A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 4	AKTIV	ALARMAUS. N.A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For setting options and descriptions please see chapter 7.5.3.

E-mail:



The screenshot shows the 'E-MAIL BENACHRICHTIGUNG' configuration page. At the top, there is a 'LOGOUT' button and the 'BURG WÄCHTER SANTEC' logo. The language is set to 'GERMAN' and the version is 'Ver 1.0.1'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'E-MAIL' menu item is selected.

The main configuration area is titled 'E-MAIL BENACHRICHTIGUNG' and contains the following settings:

- BENACHRICHTIGUNG: AUS
- SETUP: AUS
- HDD EREIGNIS: AUS
- REBOOT: AUS

	ALARM	VIDEO VERLUST	BEWEGUNG
K 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HÄUFIGKEIT: 1 MIN

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.5.4.

PTZ preset:



The screenshot shows the 'PTZ PRESET' configuration page. At the top, there is a 'LOGOUT' button and the 'BURG WÄCHTER SANTEC' logo. The language is set to 'GERMAN' and the version is 'Ver 1.0.1'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'PTZ PRESET' menu item is selected.

The main configuration area is titled 'PTZ PRESET' and contains the following settings:

- PTZ KAMERA: 1
- ALARM EIN/AUS: INAKTIV

	ALARM		VIDEO VERLUST		BEWEGUNG	
	PTZ	PRESET	PTZ	PRESET	PTZ	PRESET
K 1	<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0
K 2	<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0
K 3	<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0
K 4	<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.5.5.

9.1.2.6 Storage



The screenshot shows the 'FESTPLATTE' configuration page. At the top, there is a 'LOGOUT' button and the 'BURG WÄCHTER SANTEC' logo. The language is set to 'GERMAN' and the version is 'Ver 1.0.1'. The navigation menu includes 'KAMERA', 'ANZEIGE', 'SYSTEM', 'BENUTZER', 'NETZWERK', 'ALARMSENSOR', 'FESTPLATTE', and 'AUFNAHME'. The 'FESTPLATTE' menu item is selected.

The main configuration area is titled 'FESTPLATTE' and contains the following settings:

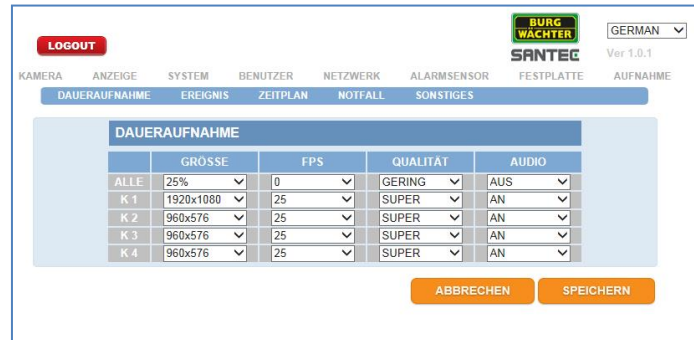
- ÜBERSCHREIBEN: AN
- AUFNAHMEZEIT LIMIT: AUS
- HDD 1: AUFNAHME
- S.M.A.R.T.

Buttons: ABBRECHEN, SPEICHERN

For setting options and descriptions please see chapter 7.3.

8.1.2.7 Record

Continuous recording:




The screenshot shows the 'DAUERAUFNAHME' configuration page. At the top, there is a 'LOGOUT' button and a language dropdown set to 'GERMAN'. Below the navigation menu, the 'DAUERAUFNAHME' tab is selected. The main content area contains a table with columns for 'GROSSE', 'FPS', 'QUALITÄT', and 'AUDIO'. The table has five rows: 'ALLE' and four camera entries 'K 1', 'K 2', 'K 3', and 'K 4'. Each row has dropdown menus for the respective settings. At the bottom right, there are 'ABBRECHEN' and 'SPEICHERN' buttons.

	GROSSE	FPS	QUALITÄT	AUDIO
ALLE	25%	0	GERING	AUS
K 1	1920x1080	25	SUPER	AN
K 2	960x576	25	SUPER	AN
K 3	960x576	25	SUPER	AN
K 4	960x576	25	SUPER	AN

For setting options and descriptions please see chapter 7.7.1.

Event:

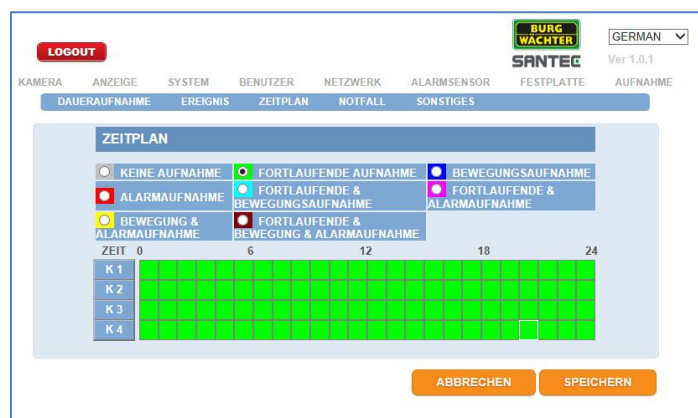


The screenshot shows the 'EREIGNIS' configuration page. It features a 'LOGOUT' button and a language dropdown set to 'GERMAN'. The 'EREIGNIS' tab is selected. The main content area contains a table with columns for 'BEWEGUNG' and 'WEITERE ALARME', each with sub-columns for 'FPS' and 'QUALITÄT', and a final 'AUDIO' column. The table has five rows: 'ALLE' and four camera entries 'K 1', 'K 2', 'K 3', and 'K 4'. Each row has dropdown menus for the settings. At the bottom right, there are 'ABBRECHEN' and 'SPEICHERN' buttons.

	BEWEGUNG		WEITERE ALARME		
	FPS	QUALITÄT	FPS	QUALITÄT	AUDIO
ALLE	0	GERING	0	GERING	AUS
K 1	25	SUPER	25	SUPER	AN
K 2	25	SUPER	25	SUPER	AN
K 3	25	SUPER	25	SUPER	AN
K 4	25	SUPER	25	SUPER	AN

For setting options and descriptions please see chapter 7.7.2.


Schedule:



The screenshot shows the 'ZEITPLAN' configuration page. It features a 'LOGOUT' button and a language dropdown set to 'GERMAN'. The 'ZEITPLAN' tab is selected. The main content area contains a grid for scheduling. At the top, there are six radio button options for recording modes: 'KEINE AUFNAHME', 'ALARMAUFNAHME', 'BEWEGUNG & ALARMAUFNAHME', 'FORTLAUFENDE AUFNAHME', 'FORTLAUFENDE & BEWEGUNGS AUFNAHME', and 'BEWEGUNGS AUFNAHME'. Below the grid, there are 'ABBRECHEN' and 'SPEICHERN' buttons.

For setting options and descriptions please see chapter 7.7.3.

Panic:



LOGOUT **BURG WÄCHTER** **SANTEC** GERMAN Ver 1.0.1

KAMERA ANZEIGE SYSTEM BENUTZER NETZWERK ALARMSENSOR FESTPLATTE AUFNAHME

DAUERAUFNAHME EREIGNIS ZEITPLAN **NOTFALL** SONSTIGES


NOTFALL

	GRÖSSE	FPS	QUALITÄT	AUDIO
ALLE	25%	0	GERING	AUS
K 1	1920x1080	25	SUPER	AN
K 2	960x576	25	SUPER	AN
K 3	960x576	25	SUPER	AN
K 4	960x576	25	SUPER	AN

ABBRECHEN SPEICHERN

For setting options and descriptions please see chapter 7.7.4.

Miscellaneous:



LOGOUT **BURG WÄCHTER** **SANTEC** GERMAN Ver 1.0.1

KAMERA ANZEIGE SYSTEM BENUTZER NETZWERK ALARMSENSOR FESTPLATTE AUFNAHME

DAUERAUFNAHME EREIGNIS ZEITPLAN **NOTFALL** **SONSTIGES**

SONSTIGES

ZEITPLAN MODUS	TÄGLICH
VORALARM AUFNAHMEZEIT	5 SEK
NACHALARM AUFNAHMEZEIT	5 SEK
NOTFALLAUFNAHME	AKTIV
NOTFALL AUFNAHMEZEIT	5 MIN
SPIEGELUNG	AUS
SPIEGELUNG TYP	EREIGNIS

KANALAUSWAHL FÜR SPIEGELUNG

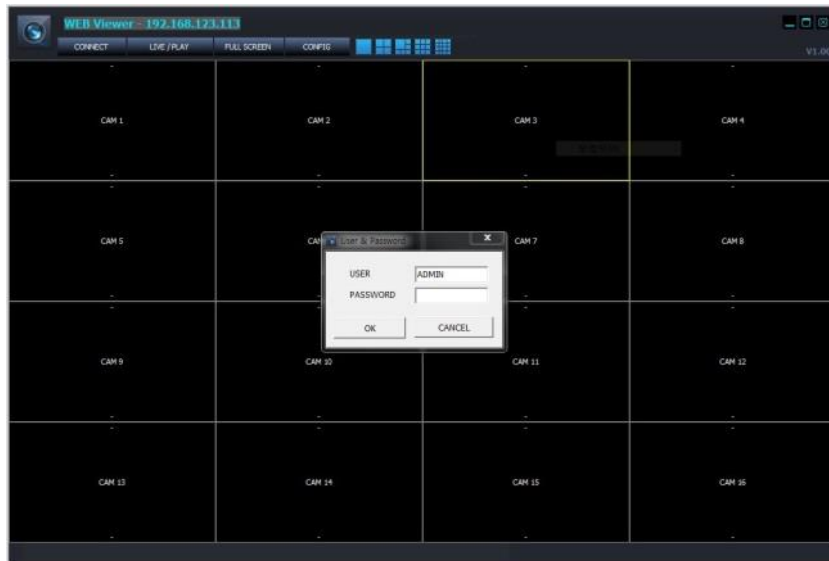
SPIEGELUNG KANAL 1	AN
SPIEGELUNG KANAL 2	AN
SPIEGELUNG KANAL 3	AN
SPIEGELUNG KANAL 4	AN

ABBRECHEN SPEICHERN

For setting options and descriptions please see chapter 7.7.5.

8.1.3 Web Viewer

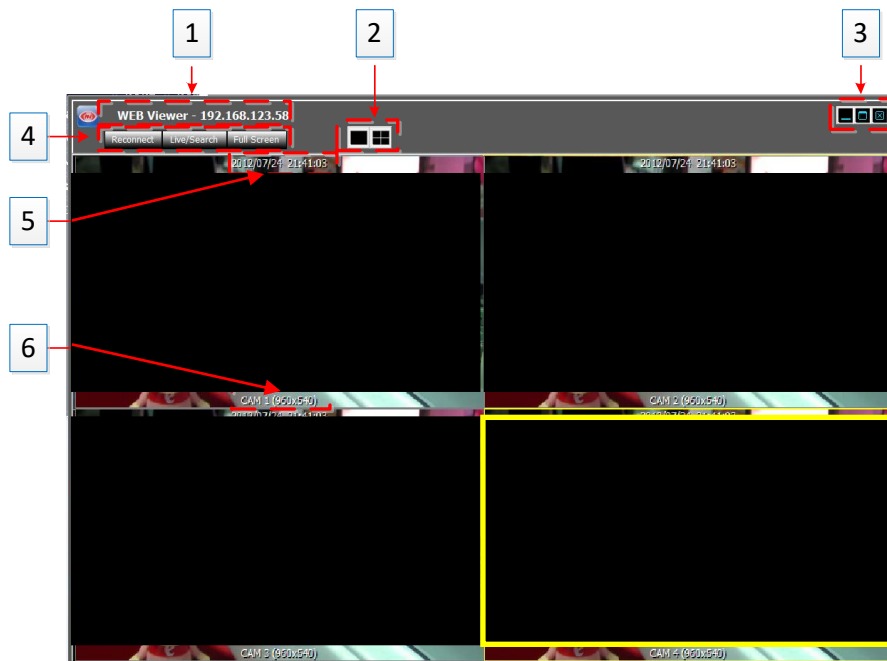
The Web Viewer opens independently of the web browser.



Login with your user name and password.
(Factory default: User = ADMIN; Password = 1234)

8.1.4 Live view

Once you have logged in, the following live view is displayed:



The currently selected camera has a yellow border.

1. The recorder's IP is displayed.

2. The display mode is indicated:



Single camera view



Quad view (4x)

3. Minimize, maximize, close buttons:



Minimize the window

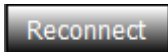


Maximize the window

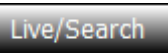


Close the window

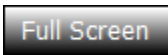
4. Reconnect, live/search, full screen:



Logout and reconnect



Toggle between live view and search/playback.



Full screen. Press ESC on your computer keyboard to exit the full screen view.

5. Date and time.

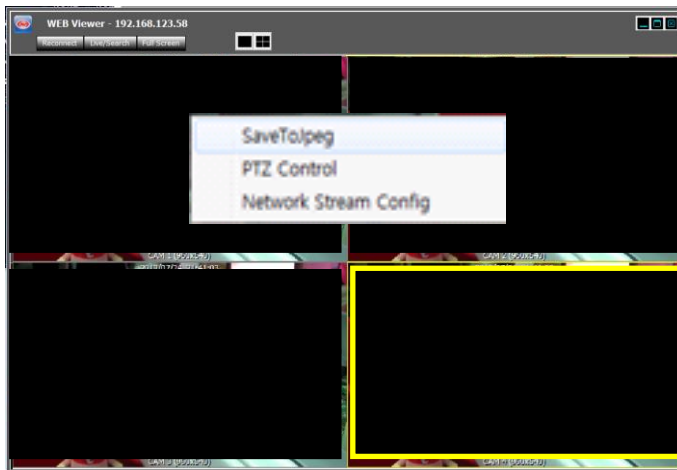
6. Camera name and video resolution.

8.1.5 JPEG snapshots, PTZ control, video configuration

Using the web viewer, you will have the following options:

- Save as JPEG file
- PTZ control
- Listen to audio
- Video configuration

Right-click into the video image to bring-up the following little window:

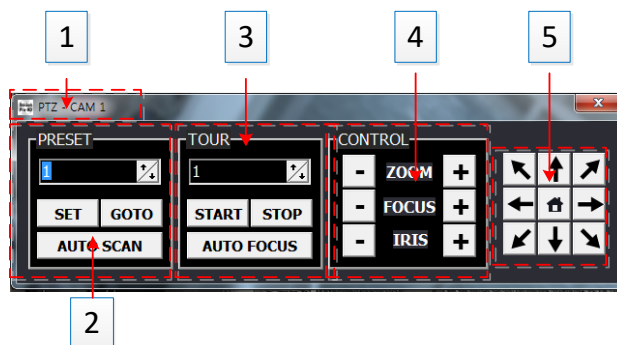


Save to JPEG:

Save the current video of the selected channel with yellow border as a JPEG file on your computer.

PTZ control:

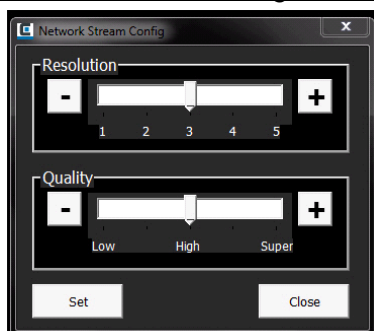
If enabled, the PTZ control panel is opened up for the selected camera channel.



1. Selected camera channel
2. Preset
3. Tour
4. Zoom, focus, iris
5. Direction (pan, tilt)

For further explanations see chapter 7.

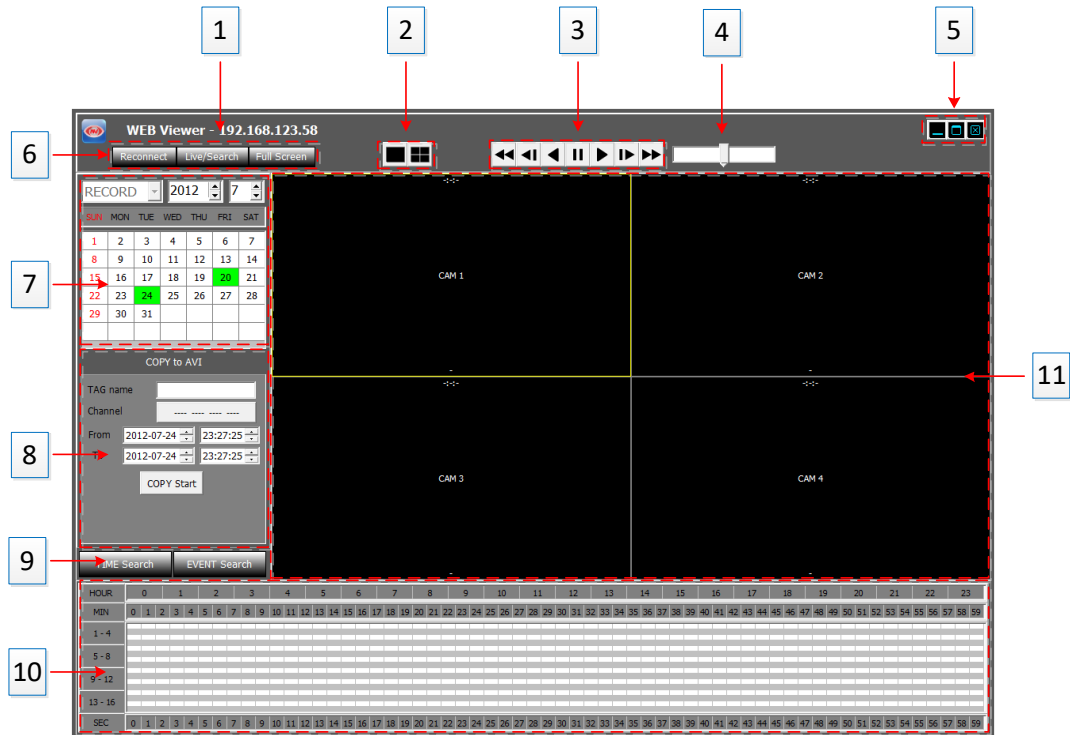
Network stream configuration:



Set the image resolution and the quality.

8.1.6 Search & playback

Live/Search Click here to start the search/playback function and to return to the live view.



1. The recorder's IP is displayed.

2. The display mode is indicated:



Single view



Quad view (4fx)

3. Playback speed:



Reverse fast



Forward normal speed



Reverse slow



Forward slow



Reverse normal speed



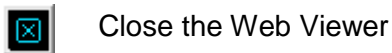
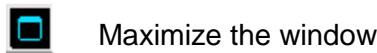
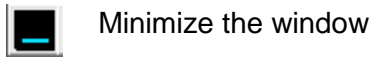
Forward fast



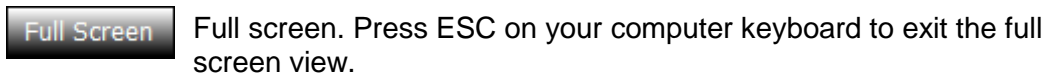
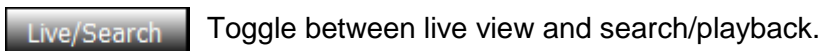
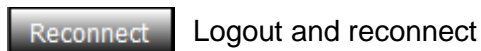
Pause

- Control bar for playback speed:
Use the bar to adjust the playback speed:
Click on right half of the bar = Fast forward
Click on left half of the bar = Fast reverse
Center click = Normal speed

- Minimize, maximize, close buttons:



- Reconnect, live/search, full screen:



- Calendar:
Days with recordings are marked in green in the calendar. Click on a day to select the recording.

- Copy recorded video:
You may copy the recorded video to your computer.
 - Tag name: Folder name where the copied file is to be saved.
 - Channel: Choose the channel/camera whose recording is to be saved.
 - From/To: Enter the start and end time of the recording.
 - Copy start: Click here to start the copy process.

- Time search / Event search:
When searching for recordings, you can search by time or by event type.



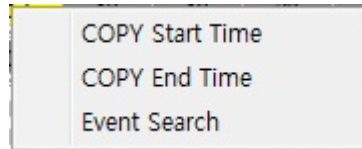
Click on „time search“ to bring-up the following window:

HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23																																				
MIN	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
1-4																																																											
5-8																																																											
9-12																																																											
13-16																																																											
SEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59

Yellow: Selected hour and minute.
Green: Continuous recording
Red: Event recording

Double-click in a minute cell to start the recording playback.

Right-click to open a little window:

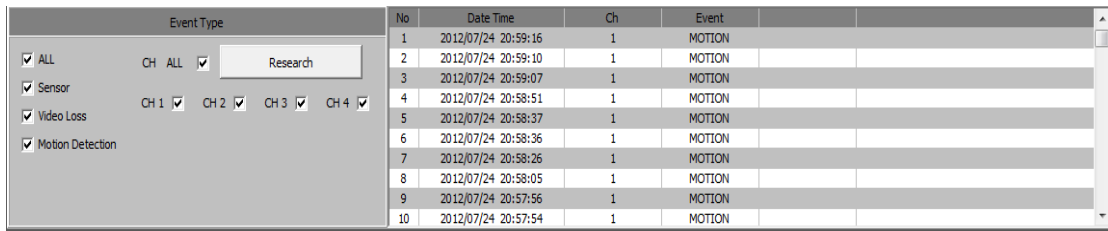


Enter the start time and end time of the recording.



Event search:

If you click on „event search“, the following window is displayed:



The screenshot shows a window titled "Event Type" with a search interface and a table of results. The search interface includes checkboxes for "ALL", "Sensor", "Video Loss", and "Motion Detection", a "CH ALL" dropdown, and a "Research" button. The table has columns for "No", "Date Time", "Ch", and "Event".

No	Date Time	Ch	Event
1	2012/07/24 20:59:16	1	MOTION
2	2012/07/24 20:59:10	1	MOTION
3	2012/07/24 20:59:07	1	MOTION
4	2012/07/24 20:58:51	1	MOTION
5	2012/07/24 20:58:37	1	MOTION
6	2012/07/24 20:58:36	1	MOTION
7	2012/07/24 20:58:26	1	MOTION
8	2012/07/24 20:58:05	1	MOTION
9	2012/07/24 20:57:56	1	MOTION
10	2012/07/24 20:57:54	1	MOTION

Event Type: Select the event type (sensor, video loss, motion detection).
Channel: Select the channel (individual channels or all of them).
Research: Start search again.

10. Time selection for recording.

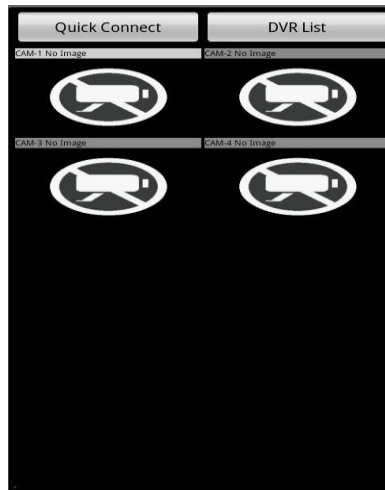
11. The event search result (thus the video) is displayed.

8.2 Remote access via smartphone (Android Viewer, iOS Viewer)

Pocket Viewer = Viewer for Android smartphones
iPocket Viewer = Viewer for iOS smartphones

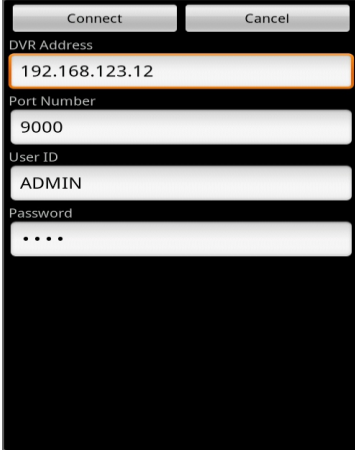
8.2.1 Start Pocket Viewer / iPocket Viewer

When you start the Pocket Viewer / iPocket Viewer application, the following window is displayed:



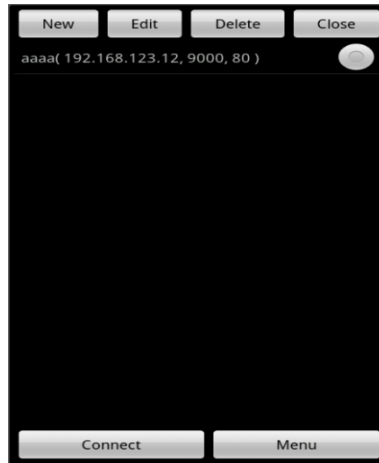
- Quick connect:
Quick access via smartphone without saving the recorder data on the smartphone.
- DVR list:
Access via smartphone and saving the recorder data on the smartphone.

8.2.1.1 Quick connect

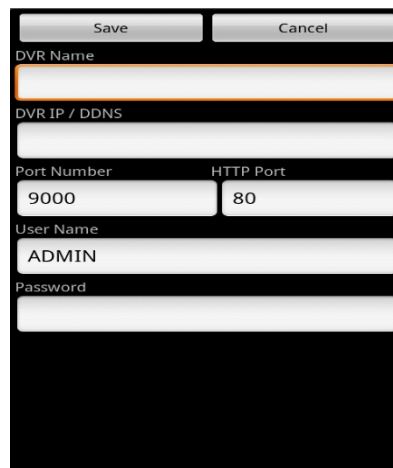


- **DVR Address:**
IP address of recorder
- **Port Number:**
Port number of recorder
- **User ID, Password:**
Enter the user name and password for the recorder (factory default: ADMIN, 1234).
- **Connect:**
A connection to the recorder will be established.
- **Cancel:**
Quick Connec will be cancelled.

8.2.1.2 DVR list



- **New:**
A new recorder will be added to the list.



- Enter the required data about the recorder.
- **Edit:**
The current recorder list can be edited.
 - **Delete:**
The current recorder list will be deleted.
 - **Close:**
The recorder list will be closed.
 - **Connect:**
A connection to the selected recorder in the list will be established.
 - **Menu:**
A connection to the web browser will be established. Further explanations on web browser settings are available in chapter 8.1.

9. Technical specifications

Model	SanStore-4HDX 4 channels	SanStore-8HDX 8 channels	SanStore-16HDXS 16 channels
Recorder type	HD-SDI hybrid digital video recorder		
Video input (HD-SDI)	4	8	16
Video output	1x VGA (1920x1080), 1x HDMI (1920x1080), BNC spot monitor output		
Audio input	4 channels cinch		
Audio output	1x cinch		
Alarm inputs/outputs	4/1	8/1	16/1
HDD capacity internal	1x 2 TB		
Maximum HDD capacity	max. 6 TB		
External HDD possible	via eSATA		
RS-485 interface	Yes		
USB ports	2x on recorder front		
Monitor outputs	1x VGA, 1x HDMI		
Spot monitor output	1x BNC 1 Vpp		
Number of Ethernet ports	1 (RJ-45)		
Video norm	PAL, NTSC		
Compression video	H.264		
Maximum resolution	HD (1920x1080)		
Maximum frame rate	100 B/S bei HD (1920x1080)	200 B/S bei HD (1920x1080)	400 B/S bei HD (1920x1080)
Data export	USB, ntework		
Remote access	Web interface, software, smartphone (iPhone, iPad, Android)		
Housing colour	Black		
Rack mount	1.5 U		
Power consumption	36 watt	60 watt	
Voltage	12 V DC via external power adapter (230V AC)		
Operating temperature	+5 to +40° C		
Storage temperature	-10° to +50° C		
Relative humidity	20-80% non-condensing		
Dimensions	249 x 340 x 60 mm	300 x 340 x 60 mm	300 x 340 x 60 mm
Weight (without HDD)	2.1 kg	2.2 kg	
Certification	CE		
Items included in delivery	Power adapter/cord, CD, mouse		

Subject to technical changes. Errors excepted-

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Please send your request to the following address:

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An der Strusbek 31
22926 Ahrensburg
Germany

Phone: +49 4102 4798 0
Fax: +49 4102 4798 10
E-mail: camera-service@burg.biz

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