TVAC16000B

User guide

Version 01/2013

Original user guide in English.
Retain for future reference!

Introduction

Dear customer,

Thank you for purchasing this product.

This product complies with current domestic and European regulations. Conformity has been verified, and all related certifications and documents are available from the manufacturer on request (ABUS Security-Center GmbH & Co. KG, Linker Kreuthweg 5, 86444 Affing, Germany).

To ensure this condition is maintained and that safe operation is guaranteed, it is your obligation to observe these operating instructions!

Read the entire user guide carefully before starting operation of the product, and pay attention to all operating instructions and safety information!

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

⚠️

Warning as required by §201 StGB (German Criminal Code):

Whosoever unlawfully makes an audio recording of the privately spoken words of another; or uses, or makes a recording thus produced accessible to a third party, shall be liable to imprisonment or a fine.

Whosoever unlawfully overhears with an eavesdropping device the privately spoken words of another not intended for his attention; or publicly communicates, verbatim or the essential content of, the privately spoken words of another, recorded or overheard, shall incur the same penalty.

⚠️

Disclaimer

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

Explanation of symbols

⚠	**The triangular high voltage symbol is used to warn of the risk of injury or health hazards (e.g. caused by electric shock).**
⚠	**The triangular warning symbol indicates important notes in these operating instructions which must be observed.**
⚠	**This symbol indicates special tips and notes on the operation of the unit.**

Important safety information

⚠	**All guarantee claims are invalid in the event of damage caused by non-compliance with this user guide. We cannot be held liable for resulting damages.**
⚠	**In the event of material or personal damage caused by improper operation or non-compliance with the safety information, we cannot be held liable. All guarantee claims are voided in such cases.**

This device has been manufactured in accordance with international safety standards.
Please read the following safety instructions carefully.

Safety information

1. Power supply
   100 - 240 V AC voltage, 50 - 60 Hz (using a power supply unit for 5 V DC)
   Only operate this device using a power source which supplies the grid voltage specified on the type plate. If you are unsure which voltage is supplied at the installation location, contact your power supply company. Disconnect the device from the power supply before carrying out maintenance or installation work.

2. Overloading
   Avoid overloading electrical sockets, extension cables and adapters, as this can result in fires or electric shocks.

3. Liquids
   Make sure that no liquids of any type are able to enter the device.

4. Cleaning
   Only use a damp cloth to clean the device. Do not use corrosive cleaning materials.
   Disconnect the device from the power supply while doing so.

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

6. Installation position
   This device is suitable both for operation in protected outdoor areas as well as indoors. The product may be damaged if it is dropped, even from a low height.
   Install the device so that no direct sunlight can shine on the image sensor. Pay attention to the installation instructions in the corresponding section of this user guide.
   Never place the device close to heaters, stoves, other sources of heat, or in direct sunlight.
   Only operate the device at locations where temperatures within the permitted ambient temperature range of -10 °C to 50 °C prevail.

7. Wireless transmission
The wireless range depends on a variety of environmental factors. The local conditions at the installation site may have a negative impact on the range. When there are no obstructions between the receiver and transmitter, a range of up to 150m is possible, but this range will be considerably less within buildings. The following environmental conditions compromise both the range as well as the frame rate:
Mobile communication masts, high-tension pylons, electrical wires, ceilings and walls, devices with the same or an adjacent wireless frequency.

Warnings

Observe all safety and operating instructions before putting the device into operation for the first time.

1. Observe the following information to avoid damage to the mains cable and plug:
   - Do not modify or manipulate the power cable or plug.
   - Do not pull the cable when disconnecting the device from the mains power – always hold of the plug.
   - Ensure that the mains cable is positioned as far away as possible from any heating equipment, as this could otherwise melt the plastic coating.
   - The power supply unit for the door station must be protected from damp and moisture.

2. Follow these instructions. Non-compliance with these instructions could lead to an electric shock.

   1. Never open the housing or power supply unit.
   2. Do not insert any metallic or flammable objects into the device.
   3. Use overvoltage protection to prevent damage caused by overvoltage (e.g. electrical storms).

3. Disconnect defective devices from the power immediately and contact your specialist dealer.

⚡	When installing the device in an existing video surveillance system, ensure that all devices have been disconnected from the power supply and low-voltage circuit.
⚠	If in doubt, have a specialist technician carry out assembly, installation, and connection of the device. Improper or unprofessional work on the power supply or domestic installation puts both you and other persons at risk. Connect the installations so that the power supply circuit and low-voltage circuit always run separately from each other. They should not be connected at any point or be able to become connected as a result of a malfunction.

Avoid the following adverse conditions during operation:

- Moisture or excess humidity
- Extreme heat or cold
- Direct sunlight
- Dust or flammable gases, vapors, or solvents
- Strong vibrations
- Strong magnetic fields (e.g. next to machines or loudspeakers)
- The camera for the door station must not be directed toward the sun, as otherwise the sensor may be destroyed.
- The camera must not be installed on unstable surfaces

Unpacking the device

Handle the device with extreme care when unpacking it.

⚠	If the original packaging has been damaged, inspect the device. If the device shows signs of damage, return it in the original packaging and inform the delivery service.

Contents

1. Intended use

This 7" touchscreen wireless monitor and the IR wireless outdoor camera enable you to easily transmit and display video signals wirelessly across moderate and large distances.
Wireless signal transmission is an advantage everywhere cables are not able to be laid: the camera transmits the video signal wirelessly to the wireless monitor. The conversion to digital signals means that malfunctions and interference can be reduced.
As soon as the camera's sensor detects motion, the recording starts on the SD card.
You have the option of connecting up to four cameras (TVAC16010) to the monitor and displaying them in the 4x camera view.
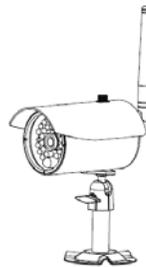You can also view the live images of the camera using the ABUS "TVAC16000" app provided the monitor is in the docking station and connected to the internet.

For a detailed description of functions, refer to Section 3, "Features and functions".
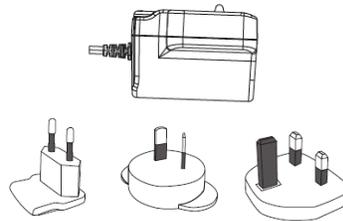
2. Scope of delivery

7" LCD monitor with docking station

1x IR wireless outdoor camera 2.4 GHz incl. camera mount and mounting material

Network cable

2 x power supply units incl. EU, AU and UK 5 VDC/ 1A adapter

3. Features and functions

- Complete set consisting of an IR wireless outdoor camera, monitor and docking station
- Compact IP66 outdoor camera with infrared night vision function and 640 x 480 pixel resolution
- Mobile access via app
- Remote access via LAN using the docking station (battery for monitor charged at the same time)
- 7" color LCD monitor with integrated loudspeakers (battery operated)
- Video and audio transmitted using encrypted digital radio
- Can be extended to include up to four wireless cameras
- Easy to operate with intuitive touchscreen

4. Device description
4.1 Monitordescription
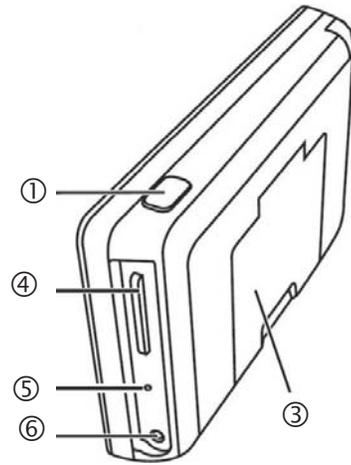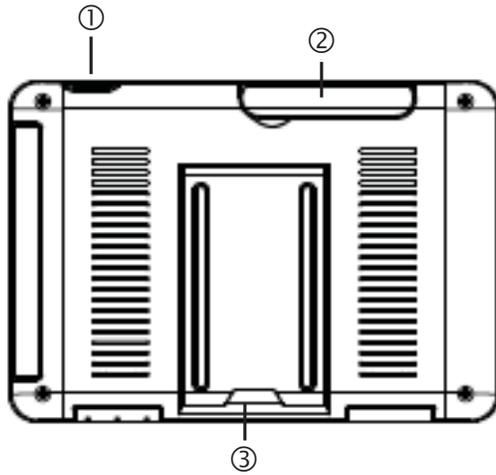
①	Power button
②	Antenna
③	Fold-up stand
④	SD card slot
⑤	Reset button
⑥	5VDC/1A power supply

4.2 Docking station description
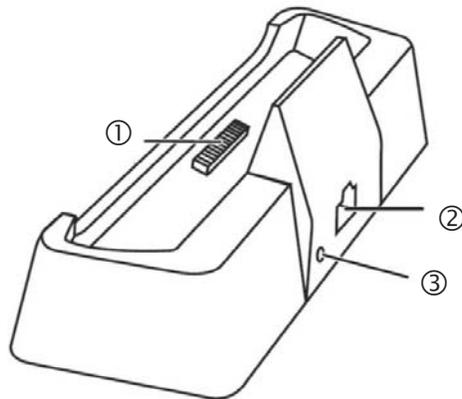
①	Docking interface monitor
②	LAN interface
③	Power supply 5VDC/1A

4.3 Camera description

①	Antenna
②	Fixed lens
③	Power LED
④	Link LED
⑤	IR LED
⑥	Photo sensor
⑦	Camera mount
⑧	Microphone
⑨	Pairing button
⑩	Power supply connection 5 VDC / 1A
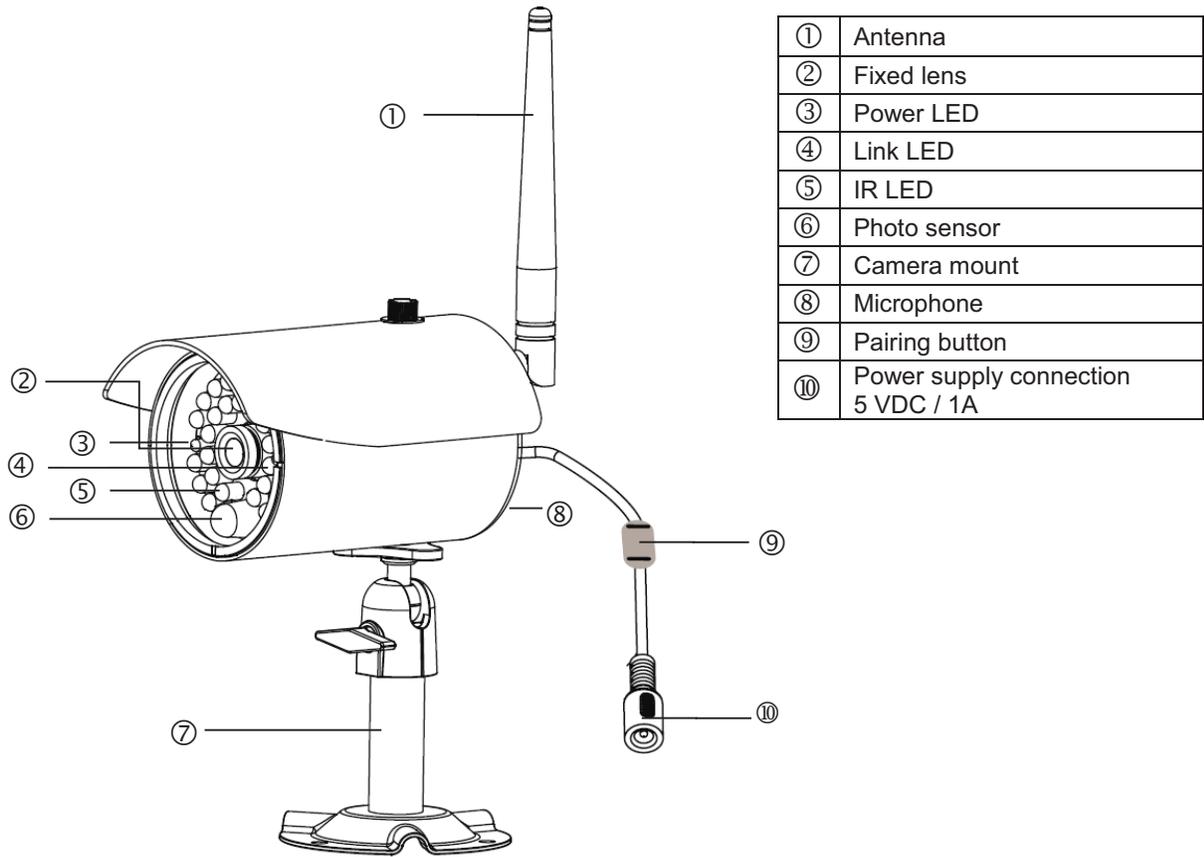
Meaning of the LEDs:

LED	Status	Meaning
Power LED ③	On (red)	Camera on
	Off	Camera off
Link LED ④	Flashing	The camera is in the "Pairing Mode".
	On (green)	Camera is connected to the monitor
	Off	Camera is in standby

5. Installation

5.1 Installing the monitor
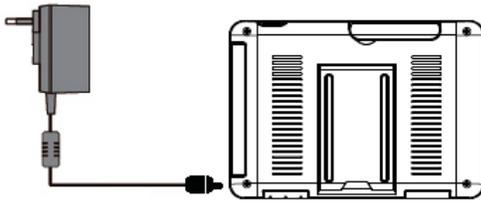
1. Connect the power supply unit to the monitor.
2. Switch the device on. Press the power button for about 5 seconds.

| ⚠	**Important:** Please note that if the monitor does NOT have an external power supply, it must be charged for at least 8 hours prior to being used for the first time. The batteries will provide power for approx. 1.5 hours.
⚠	**Important:** The integrated battery allows you to use the LCD monitor flexibly. If the battery symbol 🔋 lights up in red, then the batteries must be charged. Please note that the battery must always be charged sufficiently so as to ensure loss-free recording.

5.2 Pairing the camera and the monitor
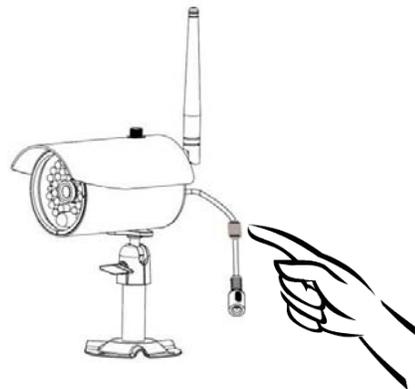
To connect a camera with the monitor, proceed as follows:

1. Connect the camera and the monitor to the power supply.
2. In the monitor menu, select "Camera", then "Pairing" and the required camera (1-4). The system counts down from 60 seconds.
3. During the 60 seconds, press the PAIRING button on the camera cable until the green LINK LED on the front of the camera starts flashing.
4. The LINK LED is lit up continuously once the connection is established.

⚠	**Important:** Please note that the connection can take up to 60 seconds.

5.3 Connecting the docking station to the network
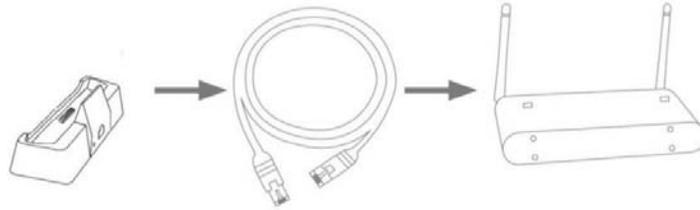
To connect the docking station to the internet, proceed as follows:
1.   Connect the network cable to your router and the docking station.
2.   Connect to the network only after you have made all the required settings on the monitor.
     The network settings are described in 6.4.3.

3.   After the network is set up, click on the [symbol] network symbol in the sub-menu and then on "Connect to internet".

⚠	The power supply unit should be connected to the docking station so that a reliable power supply is provided.

5.4 Mounting the camera

Use the camera mount to help you find a suitable place for installation. Use the drill holes to mark the surface, and drill the holes. Insert the wall plugs supplied before you attach the bracket with the screws.

⚠	**Important:** Before you begin installing, make sure that the wireless transmission range is adequate at the site of the required installation. To do this, first screw in the antenna supplied.
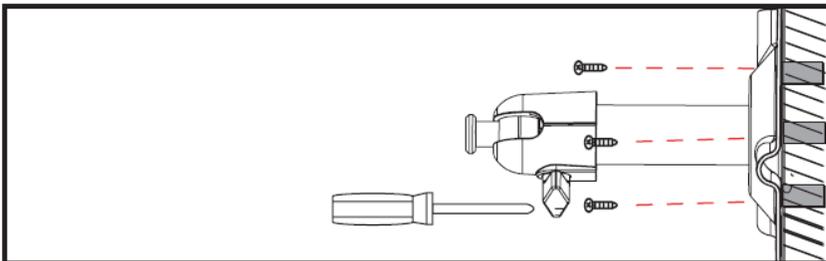
You can also swivel the mount by 90° into a particular position. First loosen the screw on the side and set the required angle. Then tighten the screw to secure the required position.
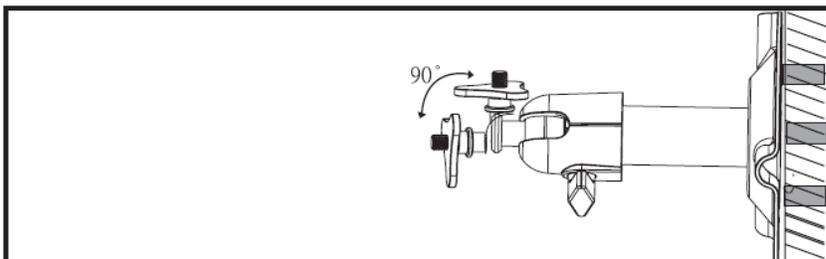
Screw the camera onto the mount and connect the power supply unit to the camera.
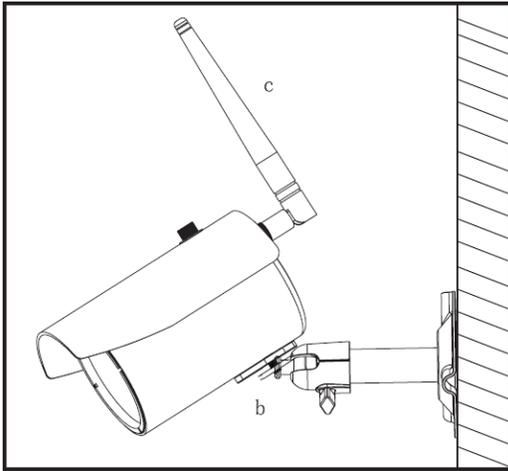
6. Operation

To switch the monitor ON / OFF, press and hold down the power button for at least 5 seconds.

6.1 Main menu

①	Live view
②	Event list
③	Settings

⚠	An ongoing recording always stops as soon as you enter the main menu.

6.2 Live view
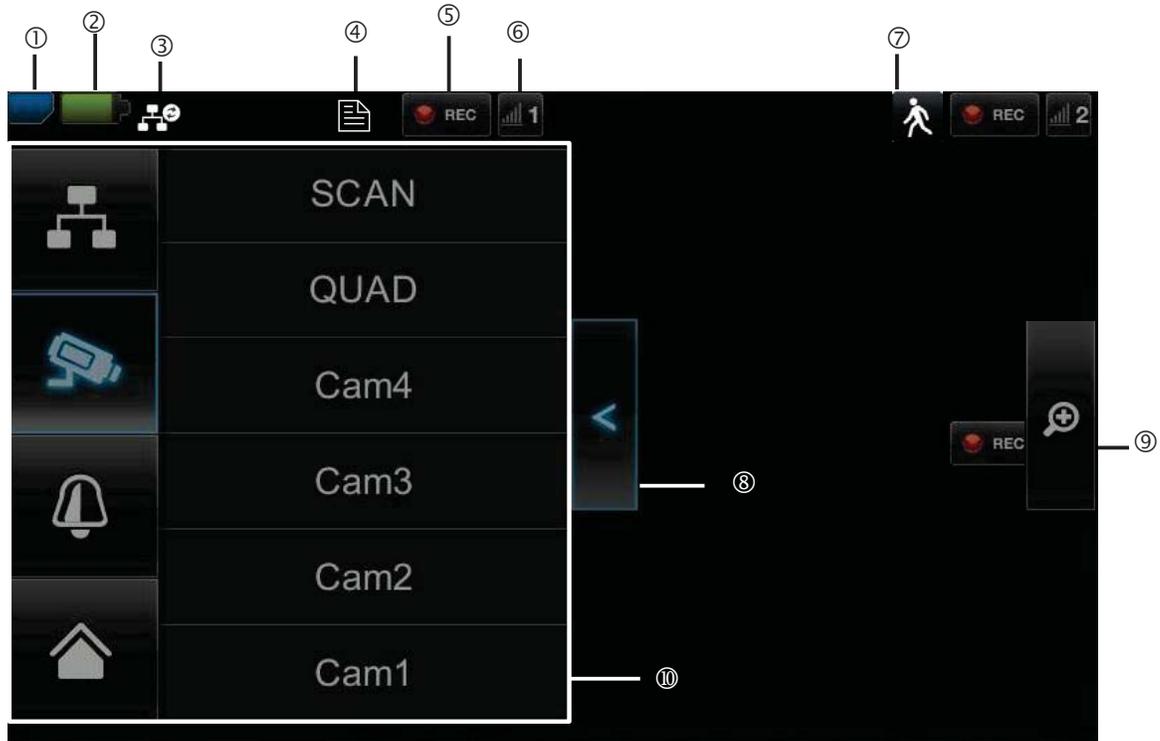
Explanation of symbols

		SD card display	
①		No SD card	Tip: Always switch off the device before removing the SD card.
		SD card detected and almost empty	⚠ Note that the device does not have a cyclic recording function. Once the SD card is full, no more recordings can be saved. If you want to record longer time periods on the SD card, buy a larger card.
		SD card full	
		Battery status display	
②		Battery fully charged	The batteries will provide power for approx. 1.5 hours.
		Low battery	Charge the monitor battery as soon as the symbol appears and flashes.
		Internet connection status	
③		Connection is being established	A connection to the network is being established.
		Connection established successfully	A connection to the network has been established.
		Disconnected	The network connection has been disconnected.
		Remote access active	This symbol appears if the live image is accessed via the app.
		Intranet	This symbol appears if your monitor is connected to the network but no internet access is required.

|			
④	**Timer**		
	📄	Schedule has been saved	This symbol appears if a programmed recording is running.
⑤	**Recording status**		
	🔘 REC	Flashes red: the device is recording	⚠️If you press the REC symbol directly, you start a manual recording. Select this again to stop the recording.
	🔴 REC	Constantly red: device is not recording	
⑥	**Camera number and reception**		
	📶1	Reception of the camera very good	⚠️The wireless transmission range depends on the environmental factors (e.g. mobile communication masts, high-tension pylons, electrical wires, ceilings and walls, etc.). Before installing the camera, check whether the wireless range is sufficient.
	📶1	No reception	
⑦	**Motion detection**		
	🚶	Recording by motion detection	⚠️ The maximum recording time is 2 minutes.
⑧	**Opening and closing sub-menus**		
	‹	>Opens the sub-menu <Closes the sub-menu	Press the arrow keys to open and close the sub-menu.
⑨	**Picture view**		
	🔍	Zoom	If you press the magnifying glass in the single view, five fields are laid out over the image. If you press on one of the marked fields, it magnifies. Press the "full screen" symbol to exit the magnified view.
	🖥	Full-screen	Here you return to the full-screen view
⑩	**Sub-menu**		
	🖧	Network connection	The sub-menu function description can be found in the table on the next page.
	📹	Camera mode	
	🔔	Volume	
	⌂	Main menu	Here you go to the main menu

Network connection

This option is only available if the monitor is on the docking station and the network cable is connected to the docking station as well as the router.
Press the network symbol and select whether the object should be connected to the internet or whether the device should just be charged.

⚠️Important: Set up the network first – find out how to do this by referring to point 6.4.3.

Once the monitor is connected to the internet, it can not be configured or operated. To go to the main menu, disconnect the internet connection.

Camera mode
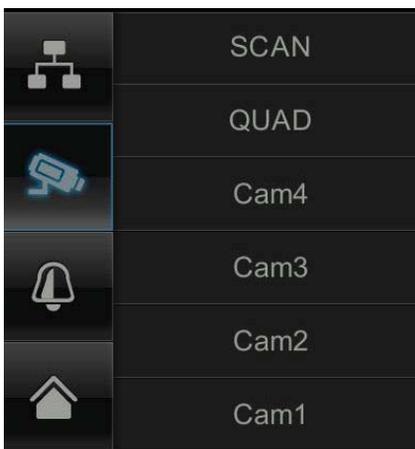
Select the required display mode, by pressing SCAN, QUAD or a camera (Cam1-4).

SCAN	Sequence display of all cameras with 5 seconds dwelling time
QUAD	Four-fold display
CAM1-4	Full screen view per camera

If you have trained **1 camera**, the picture of the camera will be shown in full screen.

If you have trained **2 – 4 cameras** and the system is in SCAN mode or full screen view, it jumps to QUAD mode automatically after 2 minutes. Here you can see a maximum of four cameras at the same time.

⚠️ Please note that in full screen mode the device can only record 1 camera or 2-4 cameras in QUAD mode and the recording stops as soon as you exit this view or go to the main menu.

The system can record several cameras at the same time.

⚠️ Please note that when several cameras are switched on, the resolution is reduced and no more audio recordings can be made.

Setting the alarm and loudspeaker volume

Set the volume of the alarm tone (bell symbol) or camera tone (loudspeaker symbol) by pressing "+" and "-".

The alarm tone sounds if you have saved a timer or a reminder at a certain time.

6.3 Event list

All the recordings are displayed in the event list and are sorted according to the date.

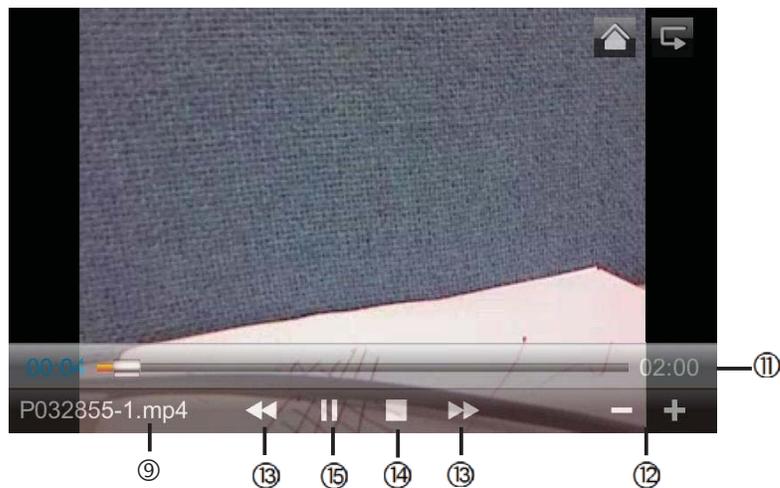### 6.3.1 List of recordings

Press the date with the green background to go to the list of recordings. The recordings are saved to sub-folders which are named with the date on which the recording was made.
The recordings are saved as individual files with the duration of the recording being used as the file name.

6.3.2 Viewing recordings

Press the file name to view the recording.

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Explanation of symbols

①		Live view	Change to live view
②		Back	Back to the main menu
③		Camera	Select one of the numbered cameras to view the recordings. Select the camera with "A" to view the recordings of all the cameras.
④	Mon	Weekday	Here you see the weekday
⑤	14	Day	A field with a green background means that a recording is available on this day. Press it to go to the "List of recordings".
⑥	◄	Change month	Press the arrow buttons to change between months.
⑦	✖	Delete file	⚠**Important:** Please note that the recording is deleted immediately. There is no need to confirm beforehand.
⑧		Camera	Shows you the recording of the particular camera.
⑨	**A105859-1.mp4**	Recording file	A=AM 10:58:59 = time 1 = Camera 1
⑩	10-10-2012	Day of recording	
⑪	0:20	Duration of the recording	
⑫	- / +	+/- volume control	
⑬	►► / ◄◄	Next / Previous recording	
⑭	■	Stop	
⑮	► / II	Play / Pause	

6.3.3   Deleting recordings

There are three ways to delete files from the SD card:
1.   Press the ✖ symbol in the event list

⚠	**Important:** Please note that the recording is deleted immediately. There is no need to confirm beforehand.

2.   Format the SD card on the monitor at the "System" > "Format memory card" menu item.
3.   Delete the SD card on the computer

⚠	**Important:** Note that the device does not have a cyclic recording function. Old data cannot be overwritten. When the SD card is full, no more recordings can be saved.
	Therefore, check the storage capacity on your SD card regularly. To secure the data, transfer your recordings to a computer/external hard disk or delete old recordings.

6.4 Settings

At the "Settings" menu item you can select the following items:
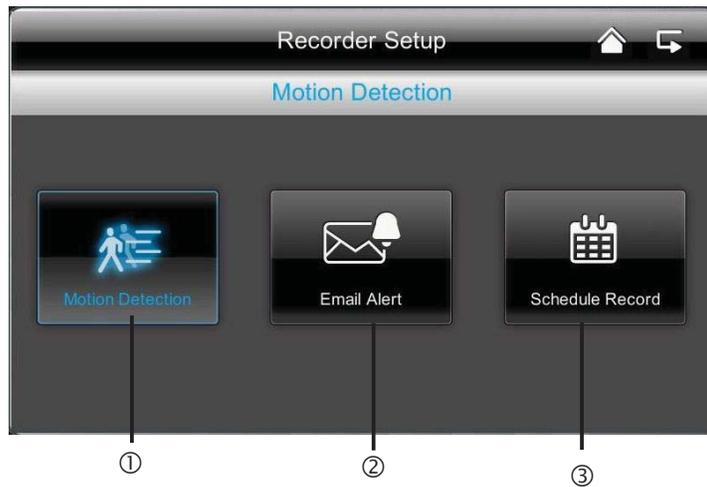

6.4.1 Camera settings

① Selecting cameras to pair	
	1. Select the required camera (1-4). The system counts down from 60 seconds. 2. During the 60 seconds, press the PAIRING button on the camera cable until the green LINK LED on the front of the camera starts flashing. The LINK LED is lit up continuously once the connection is established.

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② **Displaying/concealing a camera**

Camera Setup Select Camera to Turn On or Off Camera 1 📹 1 📹 2 📹 3 📹 4 ✓ ✓ ✓ ✓	Use the ✓ buttons to display a camera or press the ✗ button to conceal it. If you have not trained all four cameras, conceal the other cameras.

③ **Camera brightness**

Camera Setup Select Camera to Adjust Camera Brightness Camera 3 📹 1 📹 2 📹 3 📹 4 1 0 2 -1	Select the required brightness from between -2 (dark) to 2 (bright).

6.4.2   Recording settings

Recorder Setup

Motion Detection

Motion Detection   Email Alert   Schedule Record

①   ②   ③

①	**Motion detection**

Here you can set the sensitivity of the motion detection for each camera.
You can choose between "Low", "High" and "Off".

High: Motion detection with high sensitivity
Low: Motion detection with low sensitivity
Off: Motion detection is off. Motion is not recorded.

②	**Alarm alerts via email**

You can have an alarm alert sent to you via email as soon as the camera detects any motion.

Proceed as follows:
1. Select "active".
   Select "inactive" to switch this function off again and you will not receive an email for motion detection.
2. Enter your SMTP server (outgoing mail server) for your email provider.
   e.g. mail.gmx.net or smtp.gmail.com
3. Enter the corresponding port
   e.g. 465

   ⚠ The outgoing mail server and the corresponding port can be found on your email provider's website.
4. Enter your email address
5. Enter the password for your email account
6. Enter the email address to which the alarm alert should be sent.
   The two email addresses can be different.
7. In the event of motion detection, you receive an email with the following message:
   "Motion detected by your security system."

⚠ To enable this function, the monitor must be in the docking station and connected to the internet.

⚠ Please note that you only receive an email to inform you that motion has been detected. You do not receive a picture or a live view. You can then view the recording on the SD card or go to the live view via the app.

⚠ If you have not received an e-mail, please check your spam folder.

③	**Timer recordings**

You can save a recording time to start recording at a very specific time.
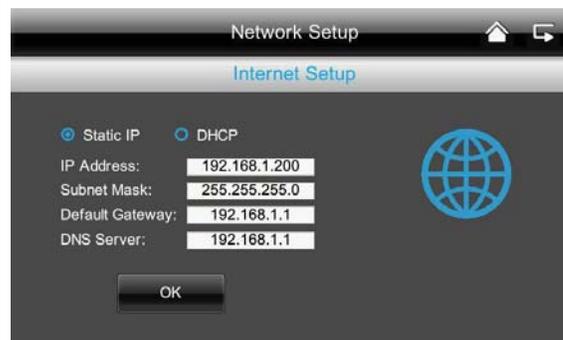You can save up to 5 recording procedures.
1. First select the number of the camera.
2. Set the start and stop time. To do this use the arrow buttons.
3. Select the required date from the calendar.
4. Press "Save" to save the procedure or "Delete" to reset.
5. As soon as a timed recording has been saved, the 🖹 symbol for recording appears.

6.4.3 Network settings

① ② ③
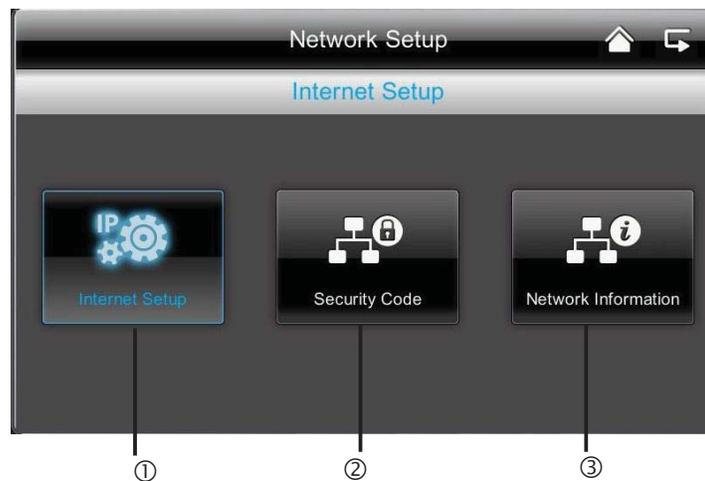
①	**Internet settings**

To establish a connection with the internet so that you can access the camera with the app, close the docking station using the network cable on your router.
Choose between static IP and DHCP.
Then confirm with "OK".

Information:
An IP address is an address in the computer network. It is assigned to devices which are linked in a network and makes the device identifiable, allowing it to be reached.

DHCP:
A DHCP is a dynamic IP address which is allocated automatically.
Stat. IP:
You can find the data for a static IP in your router settings.

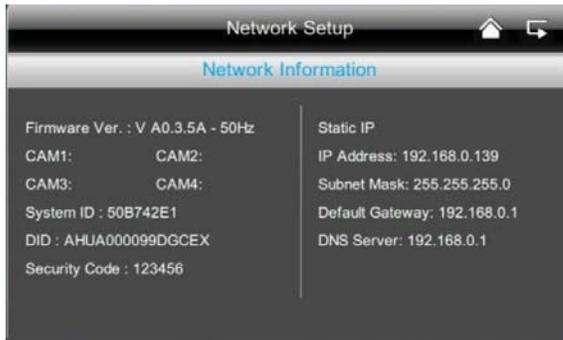| ②	**Securitycode**	
	Network Setup Security Code Current Security Code is: 123456 Change Code:　　123456 OK	The standard security code is: 123456 For reasons of security, change this code and enter a new password (max. 8 digits). Press the field with the white background and a keyboard appears. Then confirm with "OK". You will need the security code later if you want to access the cameras via the app.
③	**Network information**	
	Network Setup Network Information Firmware Ver. : V A0.3.5A - 50Hz　Static IP CAM1:　　　　　CAM2:　　IP Address: 192.168.0.139 CAM3:　　　　　CAM4:　　Subnet Mask: 255.255.255.0 System ID : 50B742E1　　Default Gateway: 192.168.0.1 DID : AHUA000099DGCEX　DNS Server: 192.168.0.1 Security Code : 123456	Here you can find out details about the active network. You will need to enter the DID code for the app later.

6.4.4   Alarm settings

①	**Duration**	
		Here you can select the required duration of the alarm. You can set the alarm duration individually: 2 seconds, 10 seconds, 30 seconds or no sound. Press any button to switch off the alarm in the event of an alarm.
②	**Alarm sounds**	
		You can choose between three alarm sounds.

6.4.5 System settings

①	**Energy saving mode**	
		Here you can activate or deactivate the automatic screen switch-off after 2 minutes. If the energy saving mode is activated, your battery lasts roughly half an hour longer.
②	**Automatic lock**	
		If the automatic lock is activated, the monitor no longer responds to the touch function after a few minutes. Press the "Power" button to switch on the monitor again.
③	**Setting the time // alarm**	
		Enter the required time at which you want to be reminded. Press "Save" and press on the time in the right-hand field, √ appears. The system then sounds at the time saved and the following symbol appears. Press on "OK" to stop the alarm.

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Setting the time // date

System Setup
Time Setting

MONTH | DAY | YEAR | HOUR | MINUTE | AM/PM
11 | 08 | 2012 | 11 | 59 | AM

SAVE | CANCEL

Here you can set the date and time.

Then save your entries.

Note:
AM = 00:00 – 11:59
PM = 12:00 – 23:59

Saving the time // timer

System Setup
Timer

MINUTE | SECOND
00 : 00

START | RESET

You have the option of programming a timer / countdown.
Press the arrow buttons to set the time. After confirming with "Start", the timer counts down and rings once the time has elapsed, then the following symbol appears.

Press on "OK" to stop the alarm.

④ **Formatting the memory card**

System Setup
Select Start to Format Storage
All Data will be Erased

Start

If you want to format your memory card, you can do it on the computer or directly on the monitor.
Press "Start" and confirm with "OK".
Cancel the procedure by pressing "Cancel".

System Setup
Select Start to Format Storage
All Data will be Erased

⚠ Warning, all data will be erased - Continue?

OK | CANCEL

⑤	**Updating the system**	
	System Setup Upgrade Firmware **System Upgrade** ↑ ▭ ✓Start	Always use the latest system firmware. You can download the latest version from our website at www.abus.com (item number TVAC16000B). To download, please proceed as follows: 1. Remove the SD card from your monitor and insert it in a SD card reader which is connected to your computer. 2. Unzip the folder. Save the files from the folder to the SD card. 3. Remove the SD card again from the SD card reader and put it back into the monitor. 4. Go to System Settings, System Update, press "Start" and the latest firmware will be installed.

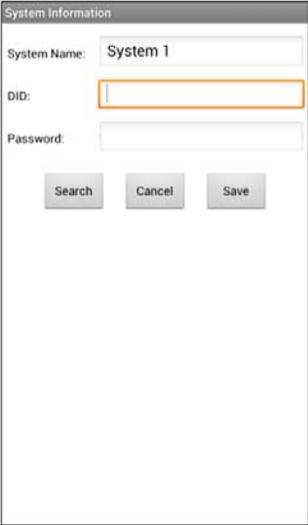| ⑥	**Restoring factory settings / selecting the language and Hz**	
	System Setup Select Proper Language **Restore Default Setting** English / 简 中 / Deutsch / Español / Dutch 日本語 / 繁 中 / Française / Português / Italiano 50 Hz / 60 Hz	Here you can select the language and the Hz frequency. When you change the language, the factory settings are restored. When you confirm with "OK", the system shuts down automatically. Press "Delete" to cancel the procedure. Once the system has shut down, restart by pressing the power button. You will then be prompted to calibrate the screen. Follow the instructions.

⚠	Important: Your recordings are always made with sound, and it is therefore important to observe the stipulation on page 2 in order to avoid putting yourself, or other persons, in an unlawful situation.

7. Remote access via app

This 7" touch screen wireless monitor gives you the option of switching live to your cameras.
The app for this device can be found in the App Store under the name of "TVAC16000".

If you want to access the live picture when you are out and about, proceed as follows:

①	**Network connection**	
		Make sure that the monitor is in the docking station, the mount is connected to the internet, the connection to the internet is established and you have made all the relevant network settings at 6.4.3 and on your router.
②	**"TVAC16000" app**	
		Download the "TVAC16000" app and install it on your smartphone.
③	**Adding the system**	
	Press to add new system	Open the app on your mobile phone and click on the symbol to add your TVAC16000 system.
④	**Entering system information**	
		1. Enter a name for your system at "System Name" which should then be displayed on your mobile phone. 2. Now enter the 15 digit DID number. This you can find in your monitor's network information on the label stuck on the product or click on "Search" and all the devices in the near vicinity are displayed. 3. Then enter your password. The password is the security code which you can also find in your monitor's network information. If you have not changed your password on the monitor, this will be the default password: 123456. 4. Save the settings with "Save" and "Yes". ⚠ Once you change your password in the monitor, you also have to change it here; otherwise you will not be able to access the cameras.

⑤ **Connection status**
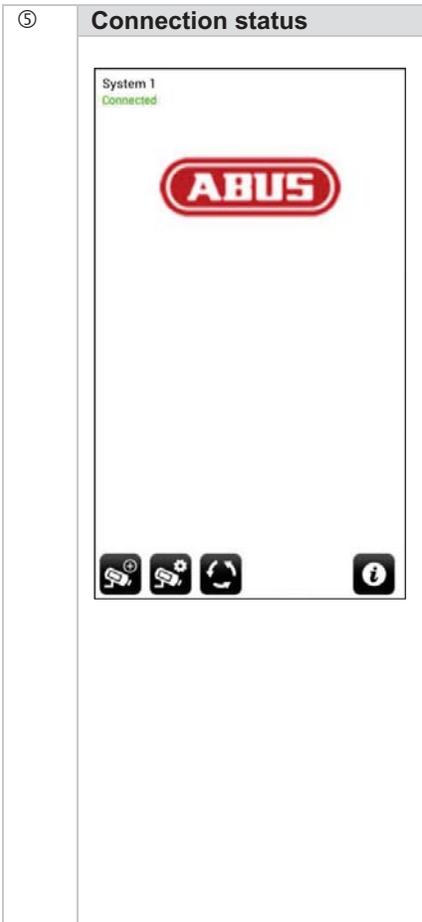
If you have added you system successfully, the name of your system and the current connection status appear.
Click on the screen to go to the live view.

System name
e.g. System 1

Connection status
Connected = you are connected with your system
Disconnected = there is no connection to the system

Adding the system
Here you can add an additional system

System information
Go to the system information here. Press "Cancel" and then to go to the live view again

Removing the system
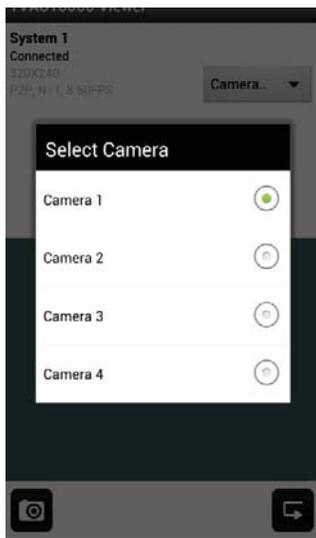If you want to remove the system, press "Yes" or cancel with "No".

Updating the connection
The connection is updated.

Firmware information / PIN code
Here you can see the current firmware version of the system and save a PIN code. You can find out how to enter a PIN code at ⑦.

⑥ **Live view**

Here you can see a live view of the camera you have selected.

Camera selection
Select the required camera.

Screenshot
Here you have the option of making a screenshot of your live image. The image is then saved in your photos on your mobile device.

Back
Here you go to the connection status. The last screenshot is always shown.

⑦	**Saving the PIN code**

If you want to save a PIN code for this APP, proceed as follows:

1. Open the "Setup PIN Lock" at ⓘ
2. Enter a 4-digit PIN code and repeat it.
3. Put a tick at "Enable lock when starting".

⚠️ When you have saved a PIN code, it will be requested when you want to open the app.

8. Maintenance and cleaning
8.1 Maintenance

Regularly check the technical safety of the product, e.g. check the housing for damage.

If it seems that it may no longer be possible to operate the device safely, stop using the product and protect it from unintentional use.

It is likely that safe operation is no longer possible in the event that:

- The device shows signs of visible damage.
- The device no longer works correctly.

⚠️	**Please note:** You do not need to perform any maintenance on this product. There are no components to service or anything inside the product to check. Never open it.

8.2 Cleaning

Clean the device with a clean, dry cloth. The cloth can be dampened with lukewarm water if the dirt on the monitor is hard to remove.

⚠️	Do not allow any liquids to enter the device. Do not use any chemical cleaning products as they could damage the surface of the housing (discoloration).

9. Disposal

♻️	Devices displaying this symbol may not be disposed of with domestic waste. At the end of its service life, dispose of the product according to the applicable legal requirements. Please contact your dealer or dispose of the products at the local collection point for electronic waste.

10. Technical data

	Camera	7" monitor
Number of IR LEDs	25	-
Rechargeable battery running time	-	1.5 hours
Battery type	-	Li-Ion polymer battery, 3.7 V / 1800 mA
Resolution	640 x 480 pixels	800 x 480 pixels
Image sensor	1/4" CMOS	-
Angle of view	60° (Horizontal) / 43° (Vertical)	-
Frequency	2.4 GHz	2,4 GHz
Wireless range	150 meters*	
IR swivel filter	Yes	-
Camera inputs	-	4
Max. operating temperature	-10 °C – 50 °C	
Modulation	FHSS	
Monitor	-	7" LCD
Network access	-	RJ45
Lens	3.6 cm fixed lens	-
Range of night vision function	Max. 8 m	-
IP protection class	66	-
Transmission power	15 +/-2 dBm	
Sensitivity	-80 dBm	
DC voltage supply	5 V DC	
Storage medium	-	SD card, max. 32 GB
OSD language		German, English, Spanish, Dutch, French, Portuguese, Italian, Chinese, Japanese
Power consumption	Max. 500 mA	Max. 800 mA
Certifications	CE	

*The wireless transmission range depends on the environmental factors (e.g. mobile communication masts, high-tension pylons, electrical wires, ceilings and walls, etc.).
If conditions are not favorable, the range will be limited.

Storage capacity

Storage capacity	One camera (480x272)	Several cameras (320x240 QVGA)
1 GB	200 minutes	130 minutes
2 GB	400 minutes	260 minutes
8 GB	1,600 minutes	1,040 minutes
16 GB	3,200 minutes	2,080 minutes
32 GB	6,400 minutes	4,160 minutes