



## TVAC16000C



<b>US</b>	<b>User guide</b>
<b>FR</b>	<b>Notice d'utilisation</b>
<b>PT</b>	<b>Manual de instruções</b>
<b>ES</b>	<b>Manual de instrucciones</b>

You can find important information and FAQs about this and other products on the website

[www.abus.com/plug-and-play](http://www.abus.com/plug-and-play)

## English

**This user manual contains important information for the installation and operation of the TVAC16000C Home Surveillance System. Please take special care to store this manual for future reference.**

A list of contents with the corresponding page number can be found in the index on **page 9**.

## Français

**Cette notice d'utilisation comporte des informations importantes pour l'installation et la commande du système de surveillance du domicile TVAC16000C. Veuillez conserver ce manuel pour une utilisation ultérieure.**

Vous trouverez une liste des thèmes à la table des matières avec mention de la page correspondante à la **page 47**.

## Português

**Este manual de instruções contém informação importante sobre a instalação e funcionamento do Sistema de Vigilância Doméstica TVAC16000C. Por favor, tenha o cuidado de guardar este manual para consulta futura.**

Uma lista de conteúdos com o respetivo número da página pode ser consultada no índice na **página 86**.

## Español

**Este manual de instrucciones contiene información importante para la instalación y el uso del sistema de vigilancia doméstica TVAC16000C. Asegúrese de guardar este manual para futuras consultas.**

En el índice de la **página 126** encontrará un listado de los contenidos con las páginas donde podrá consultarlos.



# TVAC16000C

**7" Home Video Surveillance System, Touchscreen &  
Mobile App**

## User manual

Version 04/2014



*Original user guide in English.  
Retain for future reference!*

## Introduction

Dear Customer,

Thank you for purchasing the ABUS TVAC16000C Home Surveillance System.

To ensure optimum performance and condition of this system is maintained, please read carefully the enclosed operating manual.

This operating manual is meant to guide you through the process of operating the TVAC16000C Home Surveillance System. This manual contains instructions for the system's set up/installation, maintenance and relevant safety information.

In the event you have questions regarding the system, installation or operating procedures please consult your local authorized dealer or our customer service team.

ABUS USA, LLC surveillance products are not manufactured and/or sold with the intent to be used for illegal purposes. ABUS USA, LLC expects consumer's use of these products to be in compliance with local, state and federal law. For further information on video and audio recording legal requirements, please consult your local, state and federal law.

Thank you,

ABUS USA, LLC



Data storage is subject to national data privacy guidelines.



### 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 USA, LLC 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 USA, LLC 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.



ABUS USA LLC. products are not manufactured and/or sold with the intent to be used for illegal purposes. ABUS USA LLC. expects consumer's use of these products to be in compliance with all local, state and federal law. For further information on video surveillance and audio recording legal requirements, please consult your local, state and federal law.

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## 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).
	This triangular with exclamation mark warning symbol indicates important notes in the operating instructions which should be observed.
	This symbol indicates special information bulletins and notes on the operation of the unit.

## Important safety information

	All warranty claims are invalid in the event of damage caused by operating the system in non-compliance with this user guide. ABUS USA LLC 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 warranty 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  
110 V AC voltage, 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. The power supplies are only for indoor usage.
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 14 °F to 122 °F prevail. Outside the predetermined temperature range operation is possible, but can not be guaranteed.

## 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 325 feet 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.

	<p><b>Disclaimer</b></p> <p><b>ABUS USA LLC. products are not manufactured and/or sold with the intent to be used for illegal purposes. ABUS USA LLC. expects consumer's use of these products to be in compliance with all local, state and federal law. For further information on video surveillance and audio recording legal requirements, please consult your local, state and federal law. It is your responsibility to be aware of the local, state and federal regulations regarding image storage and use.</b></p>
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## Warnings

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

- 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. It is only for indoor usage.
- Follow these instructions. Non-compliance with these instructions could lead to an electric shock.
  - Never open the housing or power supply unit.
  - Do not insert any metallic or flammable objects into the device.
  - Use overvoltage protection to prevent damage caused by overvoltage (e.g. electrical storms).
- 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.
	<p>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.</p> <p>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.</p>

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 to your authorized dealer or retailer.

## FCC Compliance Information

### Part 15 Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a Class B digital device, pursuant to Part 15 of the FCC rules and ETSI (EN) 300328. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Move the equipment away from the receiver.
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for additional suggestions.

**CAUTION! Any changes or modifications to this equipment not expressly approved by the party responsible for compliance could void your authority to operate the equipment.**

### RF Exposure Information

The antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

All declarations and certificates of conformity can be ordered from:

**ABUS USA LLC**  
**23910 N. 19<sup>th</sup> Ave.**  
**Unit #56**  
**Phoenix, AZ 85085-1850**  
Ph.: 1-623-516-9933  
Mail: [customerservice@us.abus.com](mailto:customerservice@us.abus.com)

### One-year Limited Warranty

**Important: Evidence of original purchase is required for warranty service.**

**WARRANTOR:**

ABUS USA LLC

**ELEMENTS OF WARRANTY:**

ABUS USA LLC warrants, for one year, to the original retail owner, this ABUS Product to be free from defects in materials & craftsmanship with only the limitations or exclusions set out below.

**WARRANTY DURATION:**

This warranty to the original user shall terminate & be of no further effect 12 months after the date of original retail sale. The warranty is invalid if the Product is (A) damaged or not maintained as reasonable or necessary, (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by ABUS USA LLC, (C) improperly installed, (D) serviced or repaired by someone other than an authorized ABUS service center for a defect or malfunction covered by this warranty, (E) used in any conjunction with equipment or parts or as part of any system not manufactured by ABUS, or (F) installed or programmed by anyone other than as detailed by the owner's manual for this product.

**STATEMENT OF REMEDY:**

In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will either, at its option, repair or replace the defective unit & return it to you without charge for parts, service, or any other cost (except shipping & handling) incurred by warrantor or its representatives in connection with the performance of this warranty. Warrantor, at its option, may replace the unit with a new or refurbished unit. THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE & ENTIRE WARRANTY PERTAINING TO THE PRODUCT & IS IN LIEU OF & EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESSED, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

**LEGAL REMEDIES:**

This warranty gives you specific legal rights, & you may also have other rights which vary from state to state. This warranty is void outside the United States of America & Canada.

**PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY:**

If, after following the instructions in the owner's manual you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). The Product should include all parts & accessories originally packaged with the Product. Include evidence of original purchase & a note describing the defect that has caused you to return it.

**The Product should be shipped freight prepaid, by traceable means, to warrantor at:**

ABUS USA LLC  
23910 N. 19<sup>th</sup> Ave.  
Unit #56  
Phoenix, AZ 85085-1850  
Ph.: 1-623-516-9933  
Mail: [customerservice@us.abus.com](mailto:customerservice@us.abus.com)  
Website: [www.abus.com/us](http://www.abus.com/us)

(See [www.abus.com](http://www.abus.com) for current hours of operation.)



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## 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 offers an advantage over traditional cabled transmissions lines for aesthetics and optimum camera viewing positions. 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 (TVAC16010C) to the monitor and displaying them in the 4x camera view, as well as recording with QVGA resolution at the same time. To get a recording in full-screen view at full resolution with sound, activate just one camera in the menu.

You can also view the live images from the camera via smartphone using the ABUS "TVAC16000" app and playback recorded data, 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 System Contents



1x 7" LCD monitor with docking station



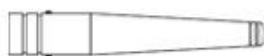
1x IR wireless outdoor camera  
2.4 GHz incl. camera mount and mounting material



1x Network cable



2 x power supply units



1x Antenna

## 3. Features and functions

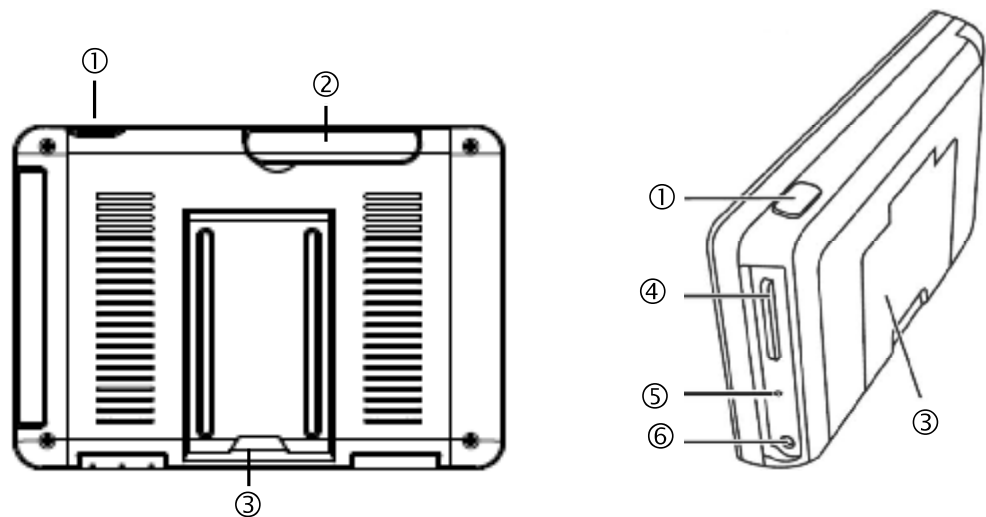
- Complete set consisting of an IR wireless outdoor camera, monitor and docking station
- Compact IP66 outdoor camera with infrared night vision function and 640 x 480 pixel resolution
- Mobile access via app
- Remote access via LAN using the docking station (battery for monitor charged at the same time)
- 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. Information and FAQs

You can find important information and FAQs about this and other products on the website [www.abus.com/plug-and-play](http://www.abus.com/plug-and-play). Information of trouble shooting installation and operation of the TVAC16000C can be found under Section 11.

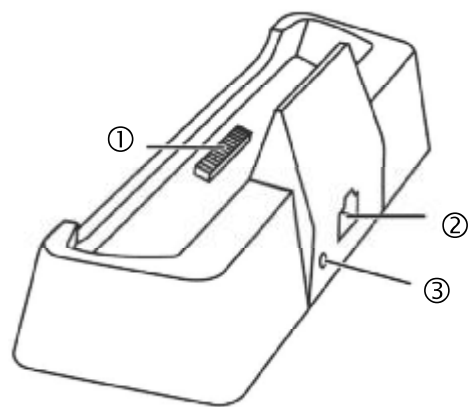
5. Device description

5.1 Monitor description



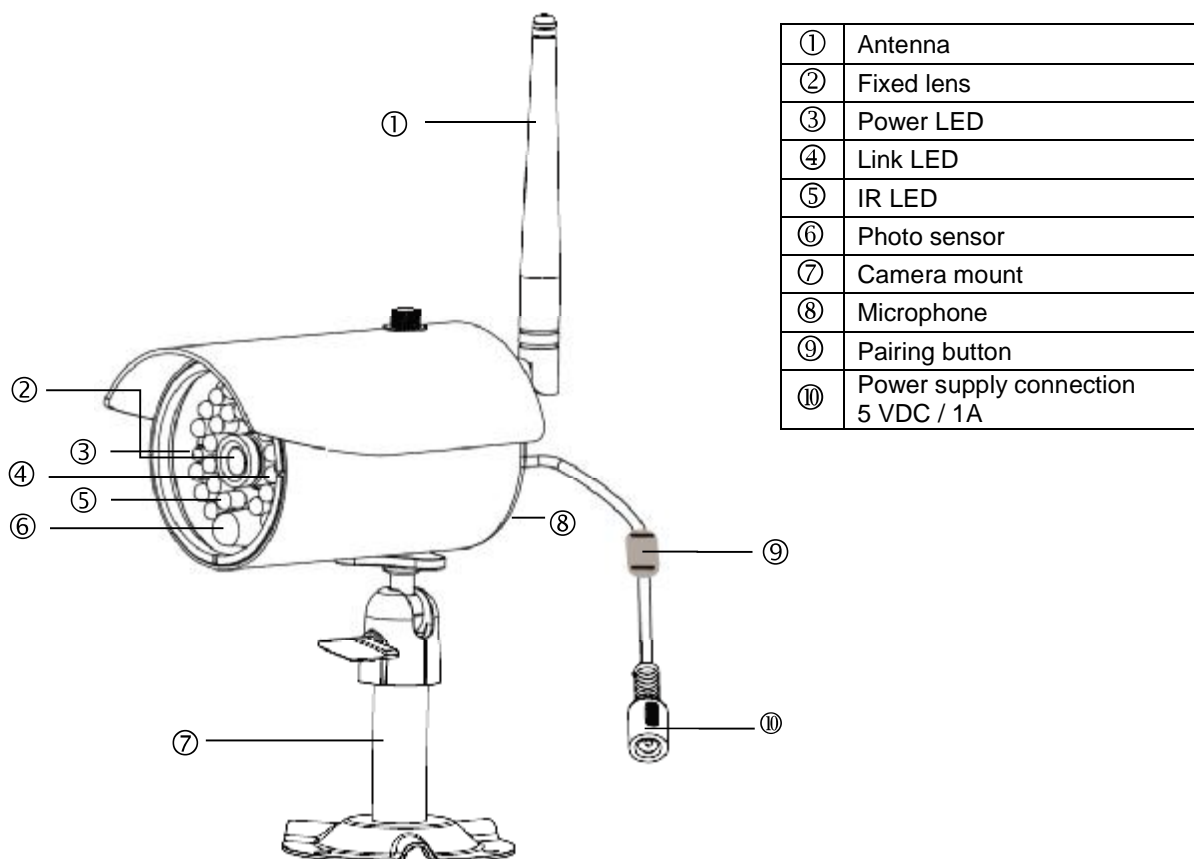
①	Power button
②	Antenna
③	Fold-up stand
④	SD card slot
⑤	Reset button
⑥	5VDC/1A power supply

5.2 Docking station description



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

### 5.3 Camera description

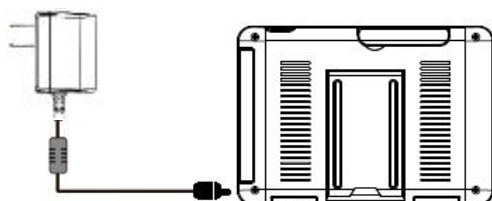


Meaning of the LEDs:


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

## 6. Installation

### 6.1 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.

	<b>Important:</b> Please note that if the monitor does <b>NOT</b> 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.
	<b>Important:</b> 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.

### 6.2 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.

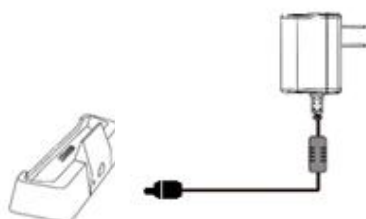
	<b>Important:</b> Please note that the connection can take up to 60 seconds.
--	---

### 6.3 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 7.4.3.
3. After the network is set up, click on the  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.

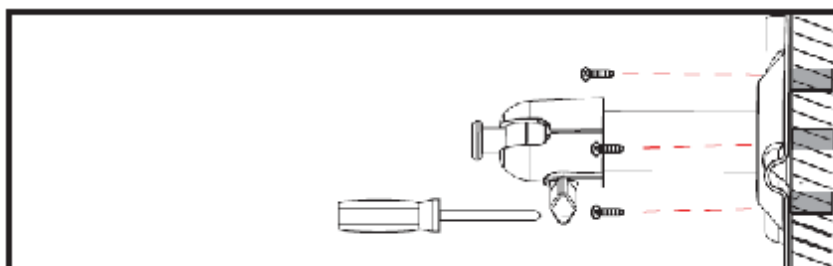
### 6.4 Mounting the camera

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.

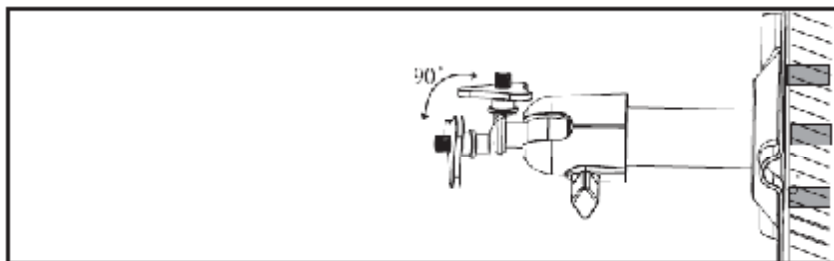


**Important:**

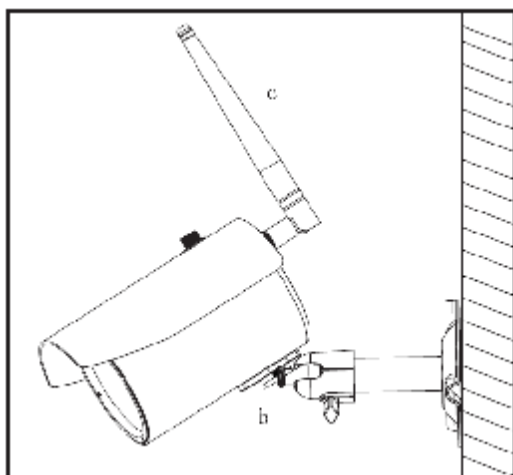
Before you begin installing, make sure that the wireless transmission range is adequate at the site of the required installation.  
To do this, first screw in the antenna supplied.



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.



## 7. Operation

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

### 7.1 Main menu



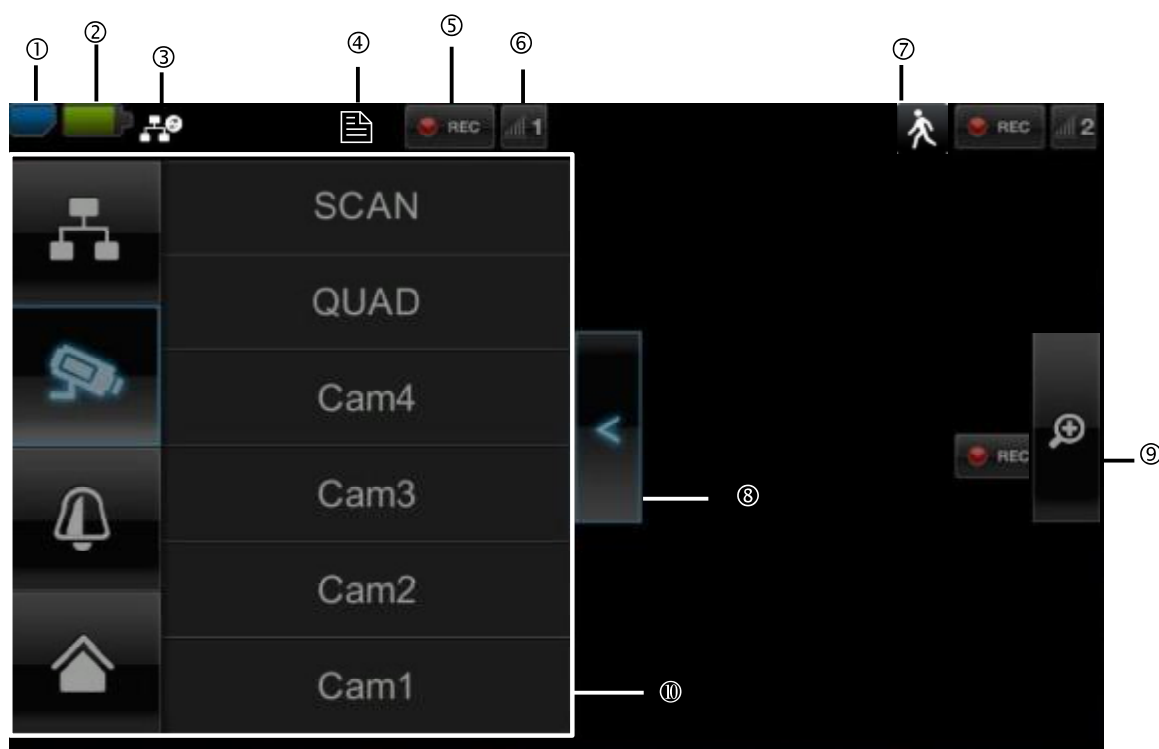
①	Live view
②	Event list
③	Settings














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

















## 7.2 Live view



## Explanation of symbols

	SD card display		
①		No SD card	Tip: Always switch off the device before removing the SD card.  Note that the device does have a cyclic recording function. However the default is set to stop once the SD card is full, no more recordings can be saved. Instructions to set the cyclic recording function are found below. If you desire more capacity please purchase a larger memory SD card.
		SD card detected and almost empty	
		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.

<b>Timer</b>		
④		Schedule has been saved This symbol appears if a programmed recording is running.
<b>Recording status</b>		
⑤		Flashes red: the device is recording
		Constantly red: device is not recording
<b>Camera number and reception</b>		
⑥		Reception of the camera very good
		No reception
<b>Motion detection</b>		
⑦		Recording by motion detection  The maximum recording time is 2 minutes.
<b>Opening and closing sub-menus</b>		
⑧		>Opens the sub-menu <Closes the sub-menu Press the arrow keys to open and close the sub-menu.
<b>Picture view</b>		
⑨		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
<b>Sub-menu</b>		
⑩		Network connection
		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.

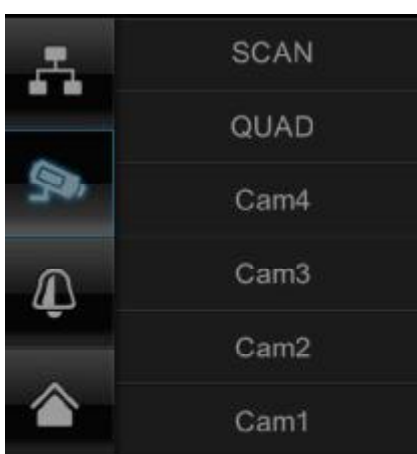
Press the network symbol and select whether the object should be connected to the internet or whether the device should just be charged.



**Important:** Set up the network first – find out how to do this by referring to point 7.4.3.

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).

<b>SCAN</b>	Sequence display of all cameras with 5 seconds dwelling time
<b>QUAD</b>	Four-fold display
<b>CAM1-4</b>	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.



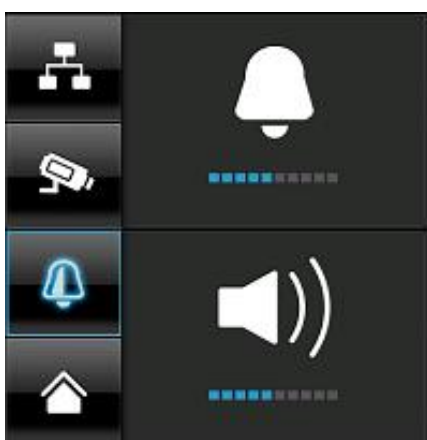
Please note that in full screen mode the device can only record 1 camera or 2-4 cameras in QUAD mode and the recording stops as soon as you exit this view or go to the main menu.

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.

7.3 Event list

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



7.3.1 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.

















7.3.2 Viewing recordings

Press the file name to view the recording.




## 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		Weekday	Here you see the weekday
⑤		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	 <b>Important:</b> 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	<b>A105859-1.mp4</b>	Recording file	A=AM 10:58:59 = time 1 = Camera 1
⑩	10-10-2012	Day of recording	
	02:00	Duration of the recording	
	- / +	-/+ volume control	
	▶▶ / ◀◀	Next / Previous recording	
	■	Stop	
	▶ /	Play / Pause	

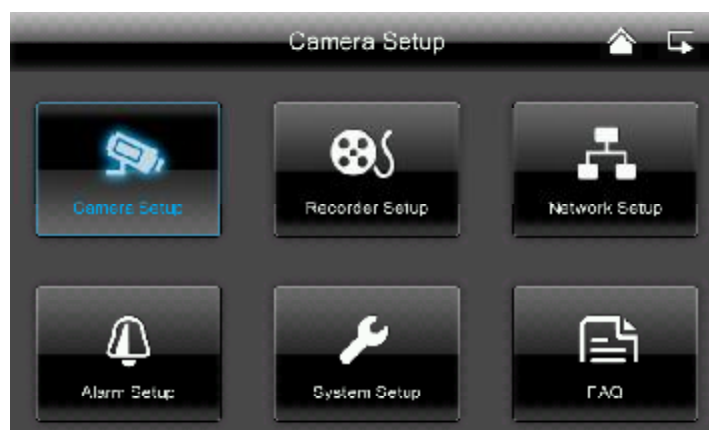
### 7.3.3 Deleting recordings

There are three ways to delete files from the SD card:

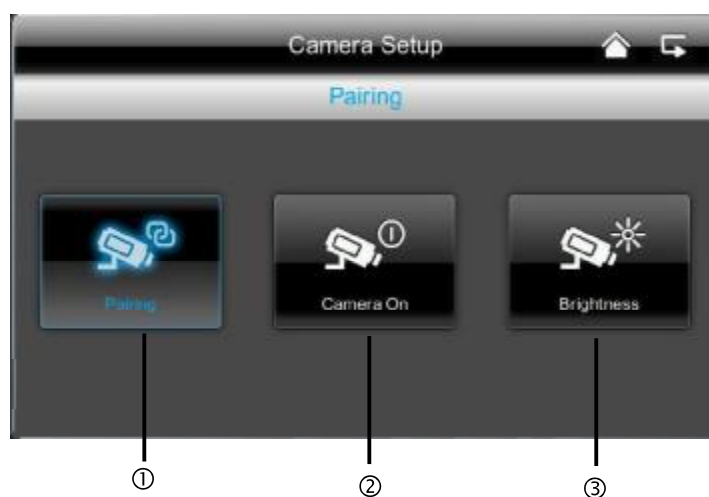
1. Press the  symbol in the event list. Delete the file by pressing the ✓ button. To cancel the procedure, press the x button.
2. Format the SD card on the monitor at the "System" > "Format memory card" menu item.
3. Delete the SD card on the computer

## 7.4 Settings

At the “Settings” menu item you can select the following items:



### 7.4.1 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.

② **Displaying/concealing a camera**

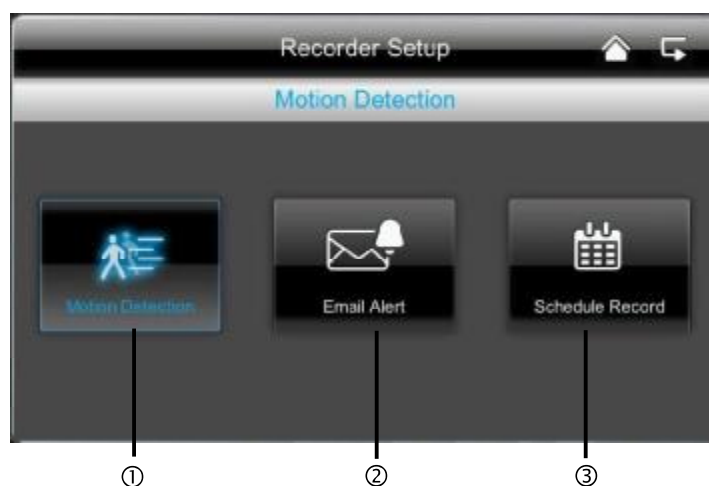
Use the ✓ buttons to display a camera or press the ✕ button to conceal it.

If you have not trained all four cameras, conceal the other cameras.

③ **Camera brightness**

Select the required brightness from between -2 (dark) to 2 (bright).

## 7.4.2 Recording settings



## 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 “Enable”.  
Select “Disable” 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
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

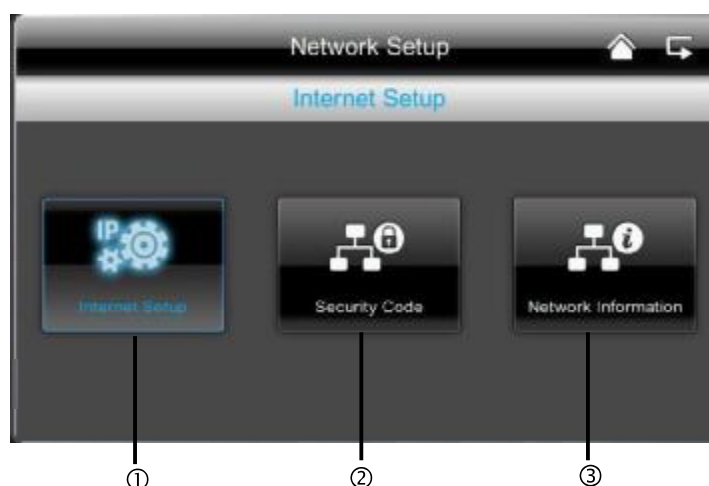


You can save a recording time to start recording at a very specific time.

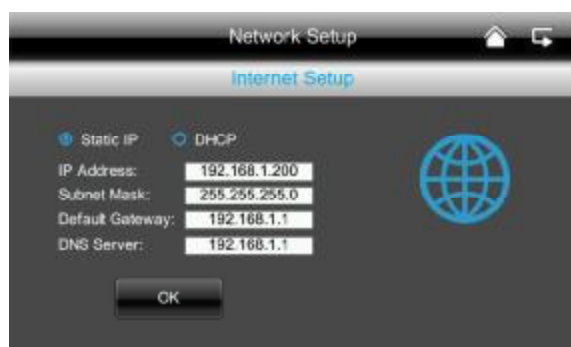
You can save up to 5 recording procedures.

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.

## 7.4.3 Network settings



## ① Internet settings



To establish a connection with the internet so that you can access the camera with the app, connect the docking station using the network cable with 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.

**Static IP:**

You can find the data for a static IP in your router settings.

②

**Securitycode**

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**

Here you can find out details about the active network.

You will need to enter the DID code for the app later.

#### 7.4.4 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



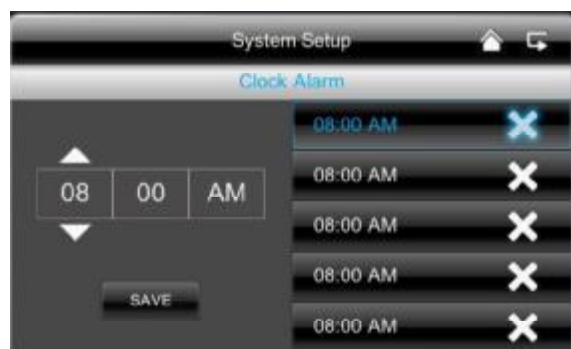
You can choose between three alarm sounds.

7.4.5 System settings



①	<div data-bbox="272 810 895 1216"><p><b>Energy saving mode</b></p></div> <div data-bbox="895 810 1449 1216"><p>Here you can activate or deactivate the automatic screen switch-off after 2 minutes.</p><p>If the energy saving mode is activated, your battery lasts roughly half an hour longer.</p></div>
②	<div data-bbox="272 1216 895 1615"><p><b>Automatic lock</b></p></div> <div data-bbox="895 1216 1449 1615"><p>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.</p></div>

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.

**Setting the time // date**

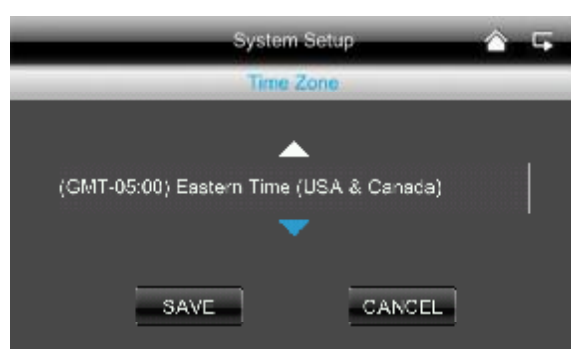
Here you can set the date and time.

Then save your entries.

Note:

AM = 00:00 – 11:59

PM = 12:00 – 23:59

**Time zone**

You can set the time zone for your country. Use the arrow keys to select the country region.

Then save your entries.




④

**Formatting the memory card**

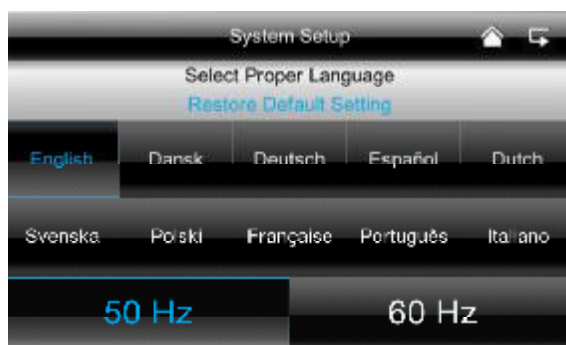
If you want to format your memory card, you can do it on the computer or directly on the monitor.

Press the ✓ button and confirm with "OK".

Cancel the procedure by pressing "Delete".

		
	<p><b>Activating the circular buffer</b></p> 	<p>Here you can activate the circular buffer for the recording.</p> <p>If this function is deactivated, the monitor stops the recording once the SD card is full.</p>
⑤	<p><b>Updating the system</b></p> 	<p>Always use the latest system firmware. You can download the latest version from our website at <a href="http://www.abus.com">www.abus.com</a> (item number TVAC16000C). To download, please proceed as follows:</p> <ol style="list-style-type: none"> <li>1. Remove the SD card from your monitor and insert it in a SD card reader which is connected to your computer.</li> <li>2. Unzip the folder. Save the files from the folder to the SD card.</li> <li>3. Remove the SD card again from the SD card reader and put it back into the monitor.</li> <li>4. Go to System Settings, System Update, press "Start" and the latest firmware will be installed.</li> <li>5. Press OK to install the latest firmware. Cancel the procedure by pressing "Delete".</li> </ol>

⑥

**Restoring factory settings / selecting the language and Hz**

Here you can select the language and the Hz frequency.

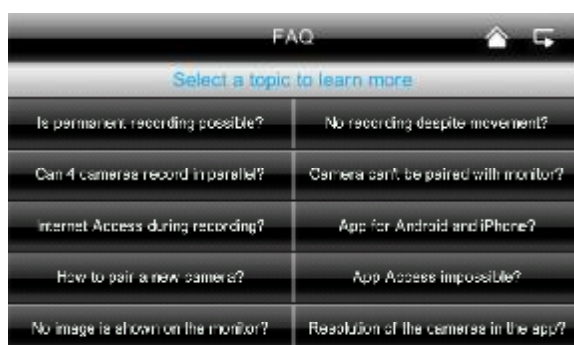
When you change the language, the factory settings are restored. When you confirm with "OK", the system shuts down automatically. Press "Delete" to cancel the procedure.

Once the system has shut down, restart by pressing the power button.

You will then be prompted to calibrate the screen. Follow the instructions.

## 7.4.6 Troubleshooting (FAQ)

①

**FAQ selection**



Here you can read about troubleshooting tips directly on your monitor.

Select the question to view the help message.

## 8. 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	<b>Network connection</b>	<p>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 7.4.3 and on your router.</p>
②	<b>"TVAC16000" app</b>	<p>Download the "TVAC16000" app and install it on your smartphone.</p>
③	<b>Adding the system</b>	<p>Open the app on your mobile phone and click on the  symbol to add your TVAC16000 system.</p>



④

## Entering system information

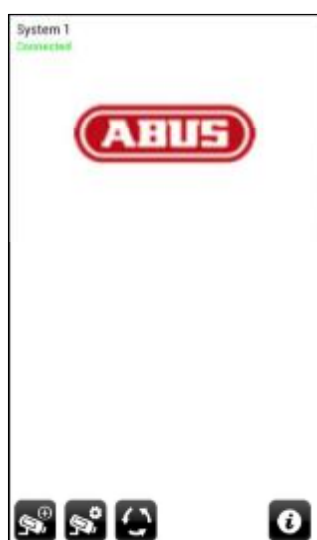
1. Enter a name for your system at "System Name" which should then be displayed on your mobile phone.
2. Now enter the 15 digit DID number. You can find the DID at the rear of the monitor and in the Network Information (see page 27). This you can find in your monitor's network information on the label 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 your 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 configuration

Go to the system configuration here.

Press  to go to the live view again.



### Updating the connection

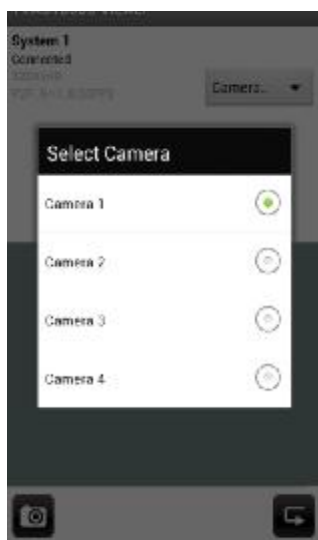
The connection is updated.



### 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.

**Starting the recording**

Here you can start a manual recording; the recording time is two minutes. The video is then saved on the monitor.


**Back**

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

⑦

**Saving the PIN code**

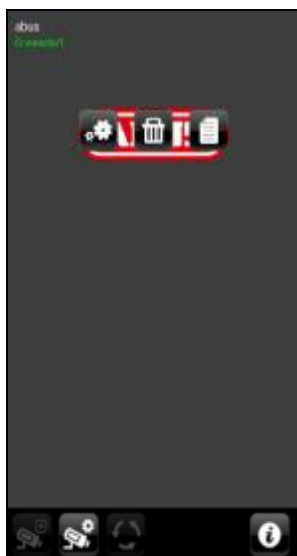
If you want to save a PIN code for this APP, proceed as follows:

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 System configuration

**System configuration**

Go to the system configuration here.

You can choose one of the following options:




Changing playback direction

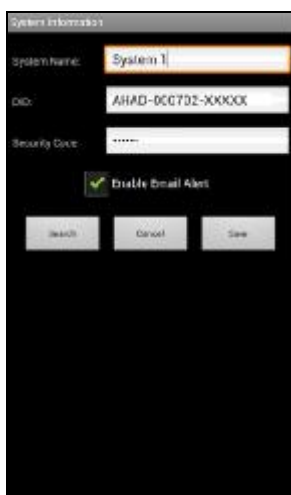


Removing the system



Access to the recordings

Press  to go to the live view again.

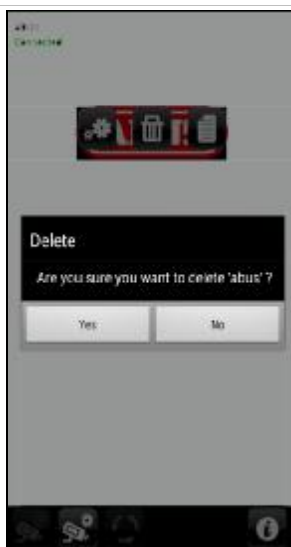
**System information**

Here you can change the system name, the DID and the security code. Save the settings by pressing "Save".

Press "Search" to look for a device in the network. To cancel the procedure, press the "Cancel" button.

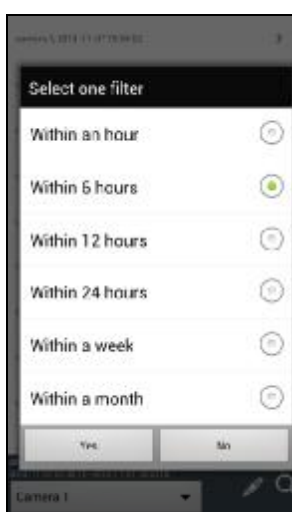
**Enabling the email alert**

Activate this function to receive email notification if an incident occurs.

**Removing the system**



After pressing the icon, a new window appears to ask you whether you really want to delete the system.

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






### Access to the recordings


Here you can view the recordings from each individual camera on your smartphone. Select the recording you want and it starts immediately.

Press  to pause the recording, to go back to the event list, press the  button.

### Deleting recordings

Press the  symbol in the event list. You can now delete recordings for the selected camera by selecting one or more files and clicking on the  symbol. To delete all the files, press , to keep the selection, press the symbol again.

### Filtering the event list

You have the option of filtering the recordings according to certain preferences. To do this, press the  symbol.

## 9. Maintenance and cleaning

### 9.1 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.

### 9.2 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.

Please also check the camera from time to time, if it is damaged or dirty. Clean the device with a clean, dry cloth.



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).

## 10. Disposal and Lithium-Polymer Battery Warning

### 10.1 Lithium-Polymer Battery Warning

- This equipment contains a rechargeable lithium-polymer battery.
- Do not charge the battery in temperatures below 32° F (0° C) or higher than 113° F (45° C).
- Do not open or mutilate the battery.
- The rechargeable batteries contained in this equipment may explode if disposed of in a fire.
- Do not short-circuit the battery.
- Do not charge the rechargeable battery pack used in this equipment with any charger other than the one designed to charge this battery pack as specified in the owner's manual. Using another charger may damage the battery pack or cause the battery pack to explode.

### 10.2 Recycling and Disposal Information


- Do not dispose of electronic devices or any of their components (especially batteries and LCD displays) in your municipal trash collection.
- Please recycle batteries to help save our planet's resources. When you throw away dead batteries, be sure to cover their terminals and always observe local laws and regulations.
- Consult your local waste management authority or a recycling organization like Earth911.com to find an electronics recycling facility in your area.
- If you are unable to locate proper recycling facilities in your area, please contact ABUS USA and we will assist you in locating a local recycling facility in your area.



**CAUTION!**

**Rechargeable Batteries Must Be Recycled or Disposed of Properly.**

## 11. Tips for troubleshooting

No.	Question	Answer
1	What does pairing the monitor and camera mean and how does this work?	<p>Pairing creates the exclusive, encrypted wireless connection between the monitor and camera.</p> <p>To connect a camera with the monitor, proceed as follows:</p> <ol style="list-style-type: none"> <li>1. Connect the camera and the monitor to the power supply.</li> <li>2. In the monitor menu, select "Camera", then "Pairing" and the required camera (1-4). The system counts down from 60 seconds.</li> <li>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.</li> <li>4. Once the connection is established, the LINK LED on the camera is lit up continuously</li> </ol>
2	What could be the reasons why no image is shown on the monitor?	<p>If you do not have a signal, please check the following:</p> <ol style="list-style-type: none"> <li>1. Is the camera connected to the power supply (does the LED light up red)?</li> <li>2. Is the monitor charged?</li> <li>3. Are the camera and monitor paired with each other (see question 1)?</li> <li>4. Is the camera within range of the monitor?</li> <li>5. Is the signal between the camera and monitor disrupted?</li> </ol>
3	What could be the reasons why the device does not record when there is movement?	Please check that the sensitivity function of the motion detection is switched on.
4	What could be the reasons why the device does not record although a schedule has been created?	<p>Possible reasons are:</p> <ol style="list-style-type: none"> <li>1. Are the date and time set correctly?</li> <li>2. Is the SD card locked (Lock/Unlock?), not inserted or empty?</li> <li>3. Have you formatted the SD card? It must be formatted before it is first used.</li> <li>4. No movement was detected.</li> </ol>
5	What could be the reasons why the camera cannot be paired with the monitor?	<p>Please check the following:</p> <ol style="list-style-type: none"> <li>1. The camera has no power supply.</li> <li>2. Briefly press the pairing button on the camera while the monitor counts down from 60.</li> <li>3. Please press the pairing button for a short time only, not continuously.</li> <li>4. Restart the monitor.</li> </ol>
6	The monitor and camera are on, but nothing can be identified on the monitor.	The key lock is probably activated. Press the power button for at least five seconds.
7	What could be the reasons why the live image can be accessed via the app within the local network, but not externally?	<p>Please check the following:</p> <ol style="list-style-type: none"> <li>1. Is the monitor in the docking station?</li> <li>2. Is the docking station connected to the network?</li> <li>3. Do you have an internet connection?</li> <li>4. Have you connected the monitor to the internet? Please note the following icon  at the top edge of the monitor (what icon? must be integrated on the website)</li> <li>5. Does your password for the monitor match the password for the app?</li> <li>6. Do you have an internet connection to your mobile phone??</li> </ol>

## 12. Technical data

	TVAC16010C	TVAC16000C
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	2414.25MHz-2461.5MHz	2414.25MHz-2461.5MHz
Wireless range	325 feet*	
IR swivel filter	Yes	-
Camera inputs	-	4
Max. operating temperature	14°F – 122°F	
Modulation	FHSS	
Monitor	-	7" LCD
Network access	-	RJ45
Lens	3.6 cm fixed lens	-
Range of night vision function	Max. 26 feet	-
IP protection class	66	-
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, Danish, Polish, Swedish
Power consumption	Max. 500 mA	Max. 800 mA
Certifications	FCC	

\*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 of SD card Approx.	One camera (480x272) approx.	Several cameras (320x240 QVGA) approx.
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