



## TVAC15000C



**US**

**User guide**

**FR**

**Notice d'utilisation**

**PT**

**Manual de instruções**

**ES**

**Manual de instrucciones**

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 TVAC15000C 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 TVAC15000C. Veuillez conserver ce manuel pour une utilisation ultérieure.**

Vous trouverez le récapitulatif des indications du contenu à la table des matières avec mention de la page correspondante à la **page 33**.

## Português

**O presente manual de instruções contém informação importante sobre a instalação e o funcionamento do Sistema de Vigilância Doméstica TVAC15000C. 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 57**.

## Español

**Este manual de instrucciones contiene información importante para la instalación y el uso de la cámara de vigilancia doméstica TVAC15000C. Asegúrese de guardar este manual para futuras consultas.**

En el índice de la **página 81** encontrará un listado de los contenidos con las páginas donde podrá consultarlos.



# TVAC15000C

## 3.5" Home Video Surveillance System

## User manual

Version 04/2014



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

## Introduction

Dear Customer,

Thank you for purchasing the ABUS TVAC1500C 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 TVAC15000C 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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## Icon explanation

	A flash in the triangle is used if there is danger for the health, e.g. by an electric shock.
	This triangular with the 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 advice

	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.

The device has been manufactured in compliance with international safety standards. Please read these safety advices carefully.

### Safety advice

1. Power supply  
110 V AC voltage, 60 Hz (using a power supply unit for 5 V DC)  
Operate this product only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company. Disconnect the product from the mains before you start any maintenance or installation procedures. The power supplies are only for indoor usage.
2. Overloading  
Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.
3. Liquids  
Protect the device from any kind of liquids entering.
4. Cleaning  
Disconnect the product from the wall outlet before cleaning. Use a light damp cloth (no solvents) to dust the product.
5. Accessories  
Do not use any unsupported accessories as these may be hazardous or cause damage the product.
6. Location
  - This device can be used in inside as well as outside.
  - The product will be damaged even it falls from a low height.
  - During the installation of the camera please take care that direct sunlight cannot fall onto the image sensor of the device. Please follow the installation instructions in the corresponding chapter of this user manual.
  - Do not place the device near a radiator or heat register.
  - 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 range of wireless transmission depends on various environmental factors. The local conditions at the installation location can have a negative impact on the range. For this reason, if there is a clear line of sight between the receiver and the transmitter, the range can be as much as 490 feet, but in buildings it is significantly less.

The following environmental factors impair both the range and the frame rate:

Mobile phone towers, high-tension electricity pylons, power lines, ceiling and walls, devices with the same or similar radio frequency.



### Disclaimer

**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.**

## Warnings

Follow all safety and operating advises before starting-up the device!

### 1. Follow these directions in order to avoid damage of the power cord or plug:

- Do not modify or process the power cord or plug arbitrarily.
- Make sure to disconnect the power cord holding the plug.
- Keep heating appliances as far as possible from the power cord in order to prevent the cover vinyl from melting.
- The outdoor camera's power supply unit must be protected against humidity and damp. It is only for indoor usage.

### 2. Follow these directions. Failure to follow any of them may cause electrical shock:

- Do not open the main body or the power supply.
- Do not insert metal or inflammable objects inside the product.
- In order to avoid any damage during lighting use a surge protection.

### 3. Do not use the product when it is out of order. If you continue to use the product when defective, serious damage can be caused to it. Make sure to contact your local product distributor if the product is out of order.



During the installation into an existing video surveillance system make sure that all devices are disconnected from the low and supply voltage circuit.



If in doubt allow a professional electrician to mount, install and wire-up your device. Improper electrical connection to the mains does not only represent a threat to you but also to other persons. Wire-up the entire system making sure that the mains and low voltage circuit remain separated and cannot come into contact with each other in normal use or due to any malfunctioning.

Avoid using the device under the following unfavorable ambient conditions:

- moisture or excessive air humidity
- extreme cold or heat
- direct sunlight
- dust or combustible gases, vapors or solvents
- strong vibration
- strong magnetic fields, such as those found in the vicinity of machinery or loudspeakers
- the camera must not be directed into the sun as this can destroy the sensor.
- the camera may not be installed on unstable surfaces

## Unpacking

While you are unpacking the device please handle it with utmost care.



If you notice any damage of the original packaging, please check at first the device.  
If the device shows damages, please contact your local dealer.

## 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, and 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). Disconnect the battery from the Product & separately secure the battery in its own separate packaging within the shipping carton. 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

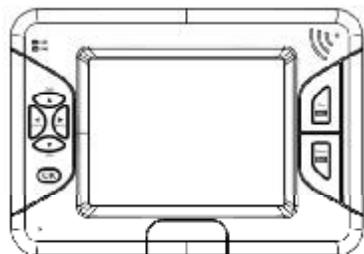
You can use this 2.4 GHz wireless monitor and the IR wireless outdoor camera with PIR for easy wireless transmission and displaying of video signals across middle to long distances.

Wireless signal transmission is an advantage in all locations where cables cannot be laid: the camera transmits the video signal to the wireless monitor without the need for wires. Faults and interference can be avoided due to the conversion into digital signals.

As soon as the camera's PIR sensor detects movement, it starts recording to the SD card. You have the option of connecting up to 4 cameras (TVAC15010C) to the monitor and showing them in a quadruple display.

A detailed function description can be found in chapter 3 ("Description and functions").

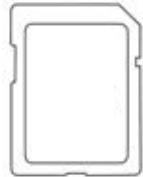
## 2. Scope of System Contents



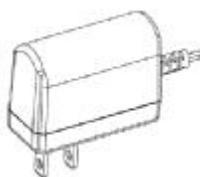
1 x 3.5" TFT monitor



1 x IR wireless external 2.4 GHz camera,  
including camera mount and  
installation material



1 x 4 GB SD card



2 x power supply units



1 x Chinch-BNC adaptor



1 x AV cable



1 x Antenna

## 3. Features and functions

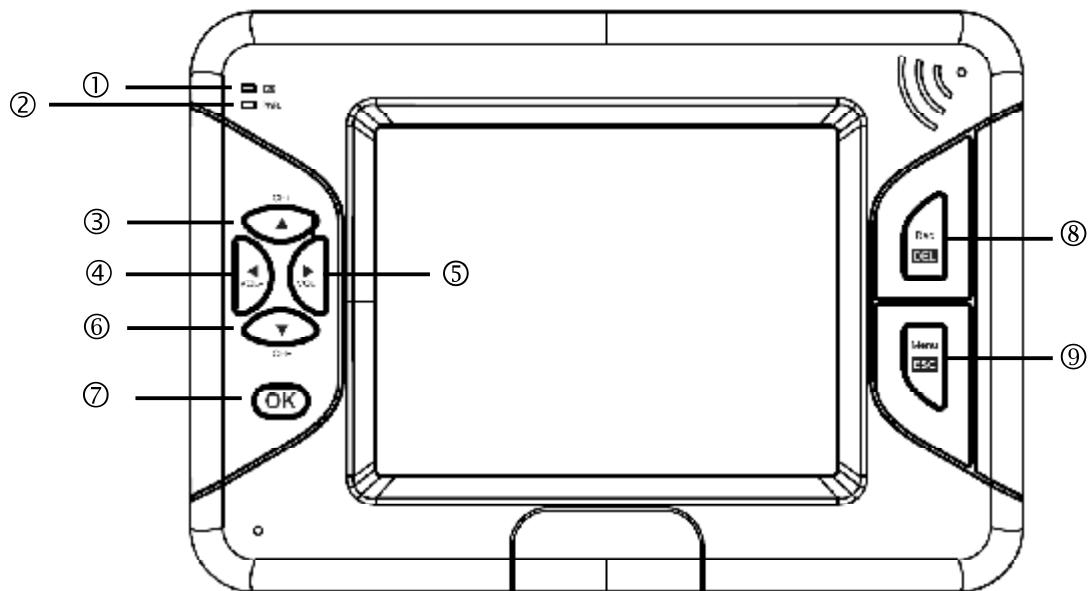
- Complete set consists of 3.5" TFT monitor and IR wireless outdoor camera, 2.4 GHz
- Compact IP66 outdoor camera with infrared night vision function and 400 TVL resolution
- 3.5" colour TFT with integrated loudspeaker
- Digital encrypted audio and video transmission
- User-friendly OSD (on-screen display)

## 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). You will find information for troubleshooting under section 10 of these instructions.

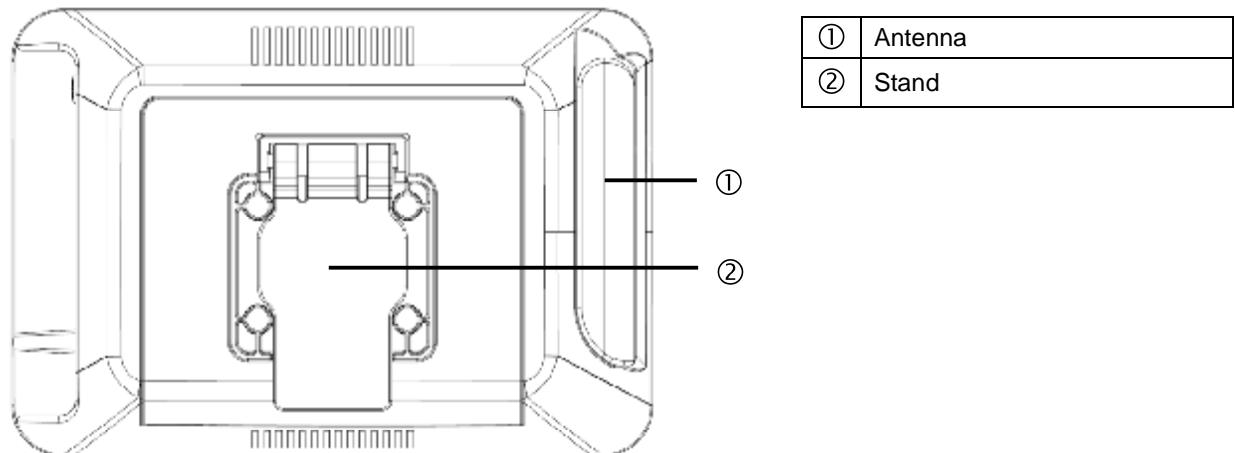
## 5. Device description

### 5.1 Front of the monitor

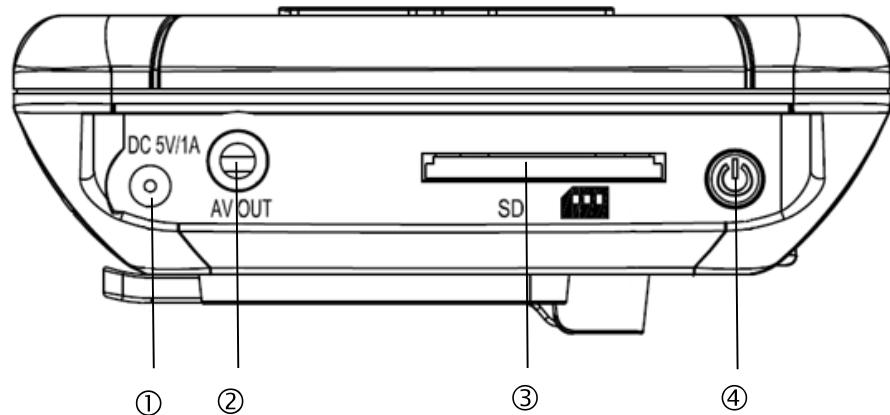


①	Battery display	Displays the current charge level Red: Battery low Green: Charging Off: Battery completely charged
②	Power LED	Device status display Blue: Device switched on Off: Device switched off
③	▲ CH +	Live view: channel change In the menu: switch between menu items
④	◀ Vol-	Live view: reduce volume In the menu: switch between menu items
⑤	▶ Vol+	Live view: increase volume In the menu: switch between menu items
⑥	CH - ▼	Live view: channel change In the menu: switch between menu items
⑦	OK key	Live view: open the events list In the menu: confirm the settings and changes
⑧	Rec/Del	Live view: start/stop recording In the menu: delete the recording Only possible with SD card!
⑨	Menu/ESC	Live view: open/exit the menu In the menu: exit submenu The system automatically exits the menu after a wait time of one minute.

## 5.2 Rear of the monitor

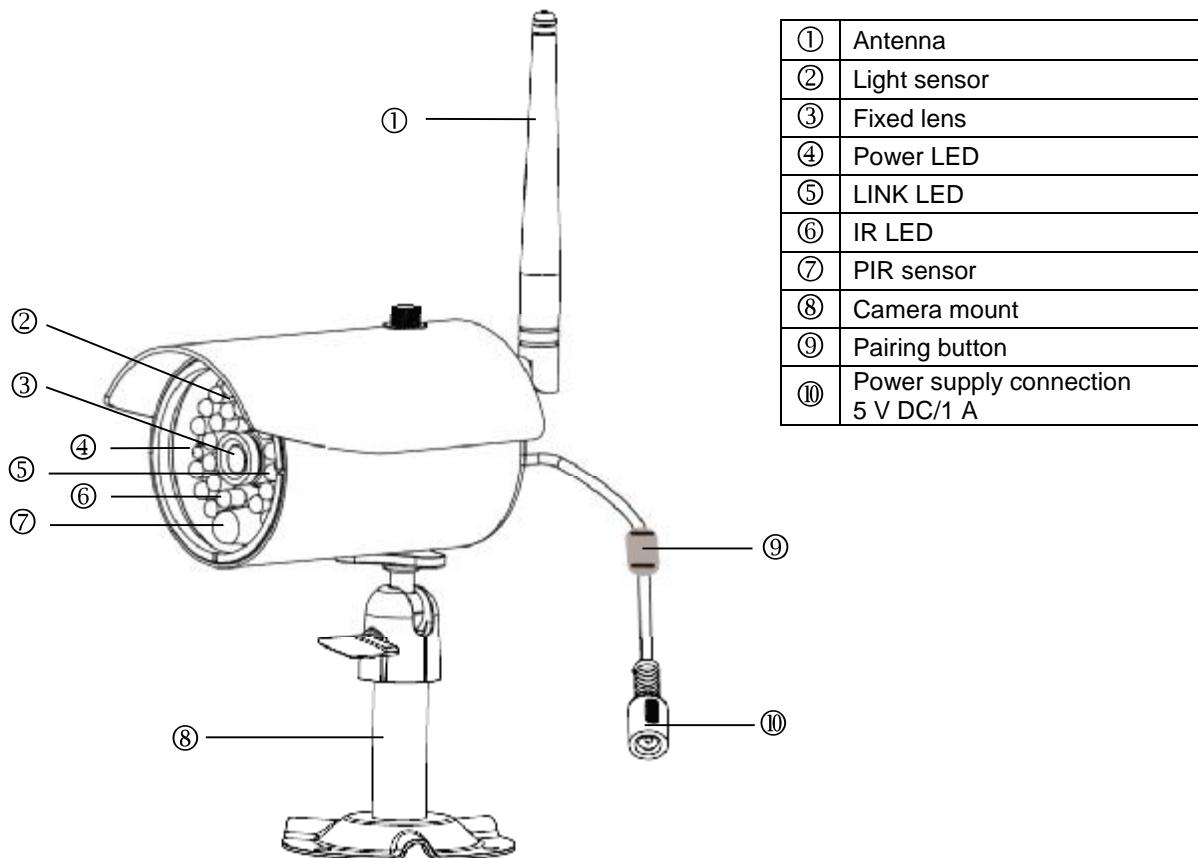


## 5.3 Monitor connections



①	Power supply	5 V DC/1 A (DC, 14.5 × 4.8 mm)
②	AV output	Output for representing the on-screen display, use the AV cable supplied
③	SD card slot	Slot for using an SD card of up to 32 GB
④	Power switch	Switch monitor on or off

#### 5.4 Camera description



#### 5.5 Cable connections



①	Yellow RCA plug (video)	Connection for transmitting the video signal
②	White RCA plug (audio)	Connection for transmitting the audio signal
③	Jack plug	Plug for connecting to the monitor

To connect the video RCA plug to a BNC input on a monitor or recorder, attach the BNC-RCA adapter to the yellow RCA plug.

## 6. Installation

### 6.1 Pairing the camera and monitor

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

1. Connect the power supply to the cameras and monitor.
2. In the TFT monitor's menu "Camera Setup -> Pairing" select the camera you require (1-4) and confirm your choice with OK. The systems starts a 60 second countdown.
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 to flash.
4. Upon successful connection of the camera the LINK LED is lit permanently.



**Warning:**

Please note that connection can take up to 60 seconds.

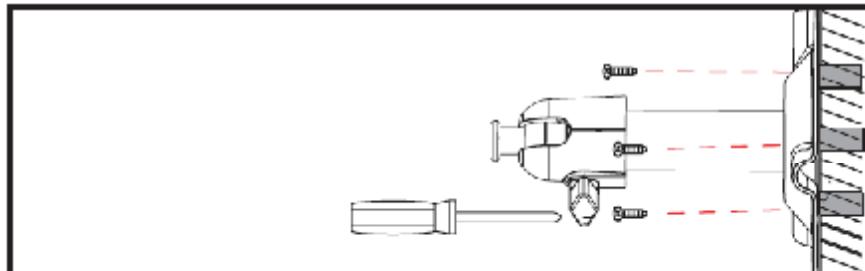
### 6.2 Installing the camera

Select a suitable place for installing the camera using the camera mount. Mark the drill holes on the base and pre-drill them. Insert the wall plugs provided and attach the mount with the screws.

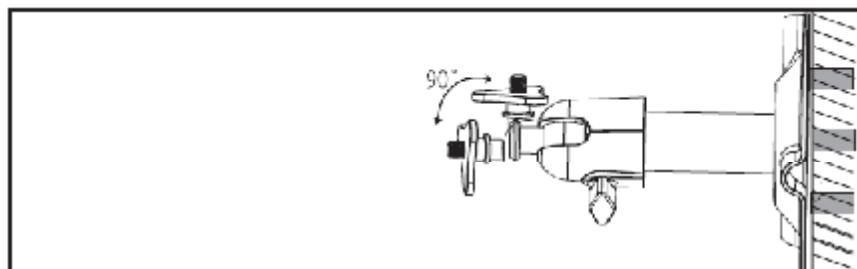


**Warning:**

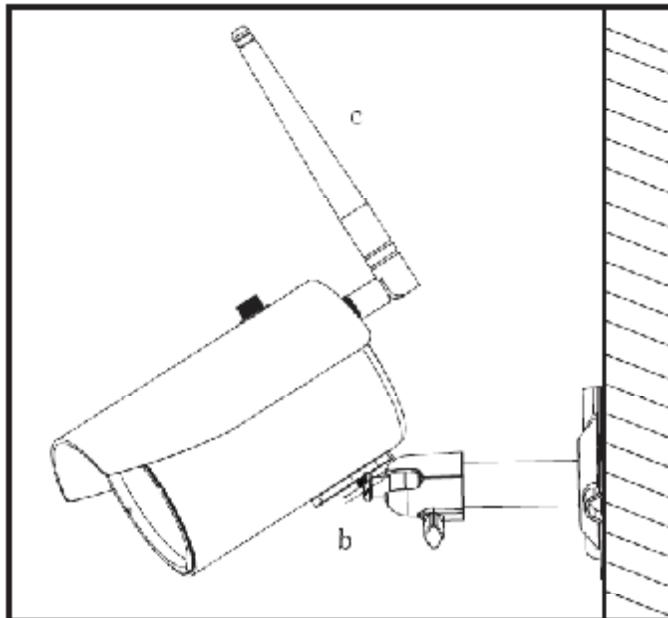
Before you start with the installation, make sure that the wireless transmission range reaches your desired installation location.



You now have the option of swivelling the mount by 90° to position it where you want it. Loosen the screw at the side and set the angle of view required. Then tighten the screw in the required position to fasten.



Then screw the camera onto the mount and the power supply unit with the camera.

**Warning:**

Only use the antenna provided for the installation.

### 6.3 Installing the monitor

The installed battery gives you the option of using the TFT monitor flexibly.

When the battery LED lights up red, the battery needs charging. Make sure that the battery is always sufficiently charged in order to guarantee no loss of recording.

**Important:**

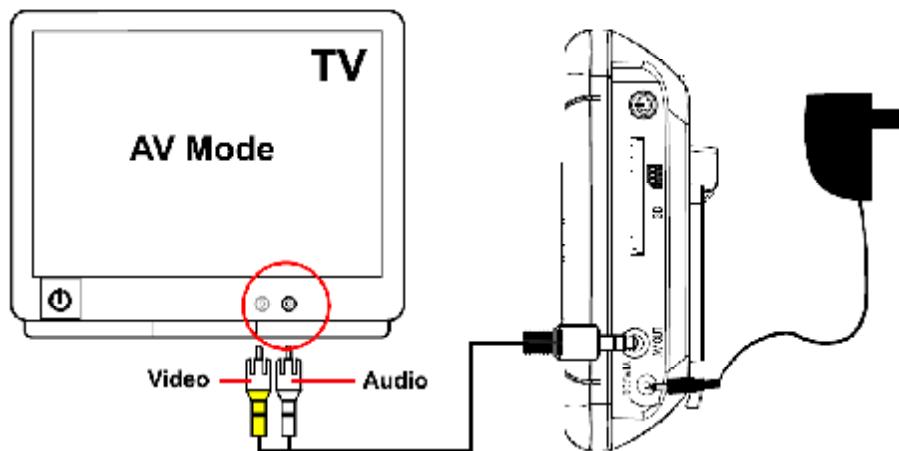
**Please note that if the monitor does NOT have an external power supply, it must be charged for at least 8 hours prior to being used for the first time.**

The battery life is about 3.5 hours.

To do this, unfold the stand and position the monitor on the desired location.

To display the monitor display on another device, proceed as follows:

1. Connect the jack plug to the monitor's AV OUT.
2. Connect the RCA plug to the monitor as shown in the drawing.



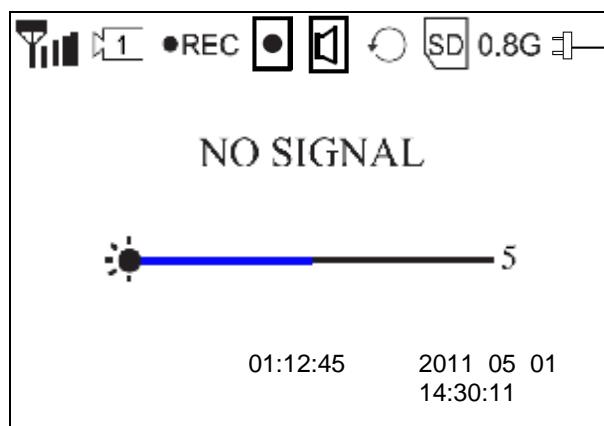
## 7. Operation

To switch the monitor ON/OFF, press and hold the power button for at least 2 seconds.

Each time it is started, the monitor switches to live view and it selects the last view that was set.

If the  icon is displayed, the monitor has correctly identified the SD card and it is working normally.

### 7.1 Live view



	Signal display
	Channel display
	Recording display: flashes during recording
	Motion detection recording activated

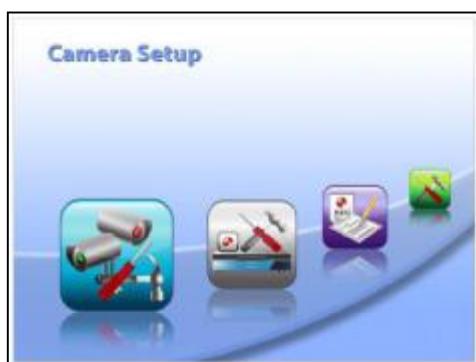
	Motion detection alarm activated
	No SD card inserted
Full SD	SD card full
Err SD	SD card was not identified
	SD card locked
	SD card is overwritten when it reaches capacity
	SD card display
0.8G	SD card capacity
	Power supply display
	Camera brightness display
01:12:45	Recording time
2011 05 01 14:30:11	Date/time display


**Please note:**

The icons disappear automatically after being displayed for ten seconds.

## 7.2 Main menu

Press MENU to open the main menu. You can use the arrow buttons to switch between menu items. You can choose between the following


**Camera-Setup:**

Camera on/off = show/hide camera  
 Camera Brightness = brightness of camera  
 Pairing = add camera  
 Resolution = image resolution


**Recorder Setup:**

Alarm Period = length of alarm when motion is detected  
 Motion Detection = motion detection  
 SD Card Overwrite = SD card circular buffer

**Event list:**

The recordings are stored in sub-folders named after the recording date.

The recordings are stored as individual files with the time of recording as the file name.

**System setup:**

Quad Display = four-way display

Scan Period = dwell time for sequence display

Time setting = Date/time settings

SD Card Format = format SD card

Power Saving = energy-saving mode

TV-Format = TV output resolution

Set to factory Default = reset to factory defaults

System Version = software version of the monitor and camera

### 7.3 Camera settings

<p><b>Camera on/off = show/hide camera</b></p> 	<p>Use the <b>◀▶</b> buttons to select a camera. Press <b>OK</b> to switch between ON and OFF. If you switch the camera OFF, it is no longer shown.</p>
<p><b>Camera Brightness = brightness of camera</b></p> 	<p>Use the <b>◀▶</b> buttons to select the desired camera and confirm your choice with <b>OK</b>. The relevant camera image is shown with a selection bar with the options 0–9. You can use the <b>◀▶</b> buttons to change the setting and confirm with <b>OK</b>.</p>

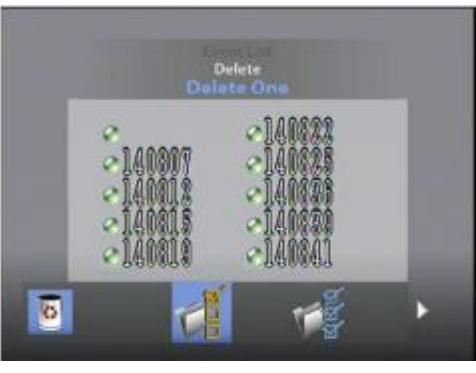
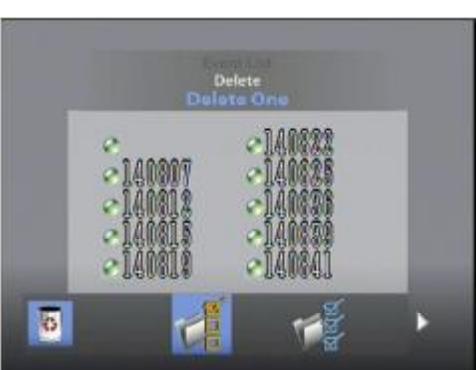
<p><b>Pairing = add camera</b></p> 	<p>Use the <b>◀▶</b> buttons to select the desired camera and confirm your choice with <b>OK</b>. The system starts a 60 second countdown. During the 60 seconds, press the <b>PAIRING</b> button on the camera cable until the green <b>LINK</b> LED on the front of the camera starts to flash. <b>Once the connection is successful, the LINK LED on the camera lights up continuously and the monitor switches to live view.</b></p>
<p><b>Resolution = image resolution</b></p> 	<p>Use the <b>◀▶</b> buttons to select between the resolutions <b>640 × 480</b> and <b>320 × 240</b>. Confirm your input with <b>OK</b>. Note that the recording time changes for the different resolutions.</p>

#### 7.4 Record settings

<p><b>Alarm Period = length of alarm when motion is detected</b></p> 	<p>Use the <b>◀▶</b> buttons to select the desired alarm duration. You can choose between <b>OFF/5 sec/10 sec/15 sec</b>. Confirm your selection with <b>OK</b>. The alarm duration is set to 5 seconds by default. Press any button to switch off the alarm when it sounds.</p>
<p><b>Motion Detection = recording duration for motion detection</b></p> 	<p>Use the <b>◀▶</b> buttons to select the recording duration for motion detection. You can choose between <b>OFF/5 sec/10 sec/15 sec</b>. Confirm your input with <b>OK</b>. The recording duration is set to 5 seconds by default. Motion detection is deactivated for 5 seconds after an alarm.</p>

<b>SD Card Overwrite = SD card circular buffer</b> 	Use the <b>◀▶</b> buttons to activate (ON) or deactivate (OFF) the SD card circular buffer. Confirm your selection with OK. The circular buffer is activated by default. <b>Warning:</b> <b>When the memory capacity is reached, the monitor continues to record, deleting the oldest recordings on the SD card.</b> <b>The SD card capacity display flashes with 0.0 G in red.</b>
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## 7.5 Event list

<b>Event List = event list</b> 	Use the arrow buttons to navigate between folders. Press the OK button to select the desired folder. In the sub-folder, choose the relevant recording file and play it by pressing OK. Press <b>▲</b> or <b>▼</b> to fast-forward or rewind at the speeds <b>2×/4×/8×/16×</b> . Note that the maximum recording time for a manual recording is 10 minutes. Once this time elapses, a new file is created.
<b>Deleting files</b> 	Press <b>DEL</b> to enter deletion mode. The current file or folder flashes. You can use the <b>◀▶</b> buttons to select all or one file. Press <b>OK</b> to confirm your choice. Select <b>○</b> to delete the selection. To cancel the deletion, select <b>×</b> .

## 7.6 System settings

<p><b>Quad Display = four-way display</b></p> 	<p>Use the <b>◀▶</b> buttons to switch the quad display on (ON) or off. To activate quad mode, all the cameras have to be activated.</p> <p>When in quad display, you can use the arrow buttons to switch directly to full-screen view for individual cameras.</p> <p>▲ = camera1; ▼ = camera2; ◀ = camera3; ▶ = camera4</p> <p>Note that the cameras that are hidden are not shown in the quad display.</p> <p><b>Warning:</b> <b>Only the full screen of the triggering channel is recorded.</b> <b>To record from all 4 cameras using motion detection, quad display has to be activated.</b></p>
<p><b>Scan Period = dwell time for sequence display</b></p> 	<p>You can define the dwell time for sequence display here. Use the <b>◀▶</b> buttons to choose between OFF/5 sec/10 sec/15 sec. If you are not using cameras, hide them in order to display only the occupied channel. To switch off sequence display, press the CH+/CH button. If you want to start manual recording, press REC.</p> <p><b>Warning:</b> <b>Note that motion detection is only activated for the channel that is currently displayed.</b></p>
<p><b>Time Setting = Date/time settings</b></p> 	<p>Press the <b>▶</b> button to switch between year/month/day/hours/minutes. Use the <b>▲▼</b> buttons to change the values. Confirm your input with OK.</p>

<p><b>SD Card Format = format SD card</b></p> 	<p>You can use this to format the SD card. The system displays the memory that is currently available (Free) and the total memory (Total). Press OK to start formatting. Confirm your selection with  and cancel the operation with .</p> <p><b>Warning:</b> <b>Format the SD card before using it for the first time.</b></p>
<p><b>Power Saving = energy-saving mode</b></p> 	<p>Use the   buttons to switch the energy-saving mode ON or OFF. This function is activated by default. This function switches the screen to standby mode after two minutes. The loudspeakers continue to operate at the same volume. Press any button to exit energy-saving mode.</p>
<p><b>TV-Format = TV output resolution</b></p> 	<p>Use the   buttons to select the desired TV format. You can choose between NTSC and PAL. Confirm your input with OK. Note that the format selected can affect the resolution.</p>
<p><b>Set to Factory Default = reset to factory defaults</b></p> 	<p>Press OK to start the factory settings. Confirm your selection with  and cancel the operation with .</p> <p><b>Please note:</b> <b>Note that this operation does not format the SD card.</b></p>

<p><b>System Version =</b> <b>software version of the monitor and camera</b></p>  <p>The screenshot shows a menu titled 'System Version' with a list of software versions. The list includes:</p> <table border="1"> <thead> <tr> <th>Device</th> <th>Version</th> </tr> </thead> <tbody> <tr> <td>RX</td> <td>Ver:9RS20</td> </tr> <tr> <td>Cam1</td> <td>Ver:TS14</td> </tr> <tr> <td>Cam2</td> <td>Ver:TS14</td> </tr> <tr> <td>Cam3</td> <td>Ver:9T16</td> </tr> <tr> <td>Cam4</td> <td>Ver:9T17</td> </tr> </tbody> </table>	Device	Version	RX	Ver:9RS20	Cam1	Ver:TS14	Cam2	Ver:TS14	Cam3	Ver:9T16	Cam4	Ver:9T17	<p>This function shows you the software versions of the monitor and all the connected cameras.</p>
Device	Version												
RX	Ver:9RS20												
Cam1	Ver:TS14												
Cam2	Ver:TS14												
Cam3	Ver:9T16												
Cam4	Ver:9T17												

## 8. Maintenance and cleaning

### 8.1 Maintenance

Regularly check the product's physical state, e.g. check for damage of the housing.

If you suspect that safe operation cannot be guaranteed anymore, disconnect the product and ensure that it cannot be used by mistake.

You can assume that safe operation is not possible anymore when

- the device shows visible damage,
- the device does not function anymore



**Please note:**

The product is maintenance free for you. Inside the product are no parts that can be checked or repaired, so do not ever open it.

### 8.2 Cleaning

Wipe the product with a clean, dry cloth. If the device is very dirty, you can moisten the cloth with lukewarm water.

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



Make sure that no liquids can enter the equipment as the device can be destroyed. Never use chemical detergents as they could attack the surface of the device

## 9. Disposal and Lithium-Polymer Battery Warning

### 9.1 Lithium-Polymer Battery Warning

- This equipment contains a rechargeable lithium-polymer battery.
- Do not charge the battery in temperatures below 32° F or higher than 112° F.
- 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.

### 9.2 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 recycling facility in your area.



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

## 10. 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 to the monitor, proceed as follows:</p> <ol style="list-style-type: none"> <li>1. Connect the power supply units to the cameras and the monitor.</li> <li>2. In the “Camera Setup -&gt; Pairing” menu of the TFT monitor, select a camera (1-4) and confirm the selection with OK. 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 and the monitor switches to live view.</li> </ol> <p>Please note that connection can take up to 60 seconds.</p>
2	What could be the reasons why the monitor displays “NO SIGNAL” instead of a picture?	<p>If you do not have a picture 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. Are the camera and monitor paired with each other?</li> <li>3. Is the camera within range of the monitor?</li> <li>4. Is the signal between the camera and monitor disrupted?</li> </ol>
3	What could be the reasons why the device does not record?	<p>If your device does not record, please check the following:</p> <ol style="list-style-type: none"> <li>1. Have you inserted an SD card?</li> <li>2. Is the SD card locked? (Lock/Unlock?)</li> <li>3. Have you formatted the SD card? It must be formatted before it is first used.</li> </ol>
4	What could be the reasons why the device does not record when there is movement?	<p>The “motion detection” function may be switched off. Please go into the “Recorder Setup / Motion Detection / ON/OFF” menu and set the function to “ON”.</p>
5	What should I do if, in night mode, half of the image shows nothing and remains black?	<p>The camera has an integrated infrared swivel filter which ensures the camera switches to night mode when it is dark. If part of the image is black, it is possible that the swivel filter has got stuck mechanically. Tapping the camera lightly can solve this problem.</p>
6	Is a standby mode possible?	<p>You can switch the device to an energy saving mode. If the camera detects a movement during this time, the image is automatically displayed.</p>
7	Can the sound for the motion detection be adjusted?	<p>Yes, in the menu item “Record Settings” you can turn off the alarm tone. You will find this under “Alarm Period”.</p>
8	Can more than one monitor be used at the same time?	<p>No, for technical reasons this is not possible because a camera can only be paired directly with one monitor (camera(s) and monitor form a pair).</p>

## 11. Technical data

Model number	TVAC15000C Camera
Frequency	2402-2480MHz
Modulation	GFSK
Sensitivity	-82 dBm
TV lines	400 TVL
Image sensor	1/4" CMOS
Resolution	640 × 480 pixel (VGA)
No. of IR LEDs	27 IR LEDs
Lens	3.6 mm
Angle of view	56° (H)/43° (V)
PIR angle of view	60° (H)/50° (V)
PIR range	Max. 16 feet
Night vision function range	approx. 32 feet
IR swivel filter	Yes
IP protection class	IP66
Wireless range	approx. 325 feet (clear sight line)*
Power supply	5 V DC/1 A
Power consumption	Max. 550 mA
Operating temperature	14° F – 122° F
Dimensions (L × W × H)	120 × 71 × 68 (without antenna and mount)
Weight	320 g

Model number	TVAC15000C 3.5" TFT monitor
Frequency	2402-2480MHz
Modulation	GFSK
Sensitivity	-82 dBm
Transmission cable	4
Resolution	640 × 480 pixels (VGA)/320 × 240 pixels (QVGA)
Video signal	1.0 V p-p, 75 Ohm
Audio signal	1.0 V p-p, 600 Ohm
Storage medium	SDHC card, max. 32 GB
Outputs	3.5 mm jack (video)
Wireless range	approx. 325 feet (clear sight line)*
Battery type	Li ion polymer battery, 3.7 V / 1800 mAh
Battery life	approx. 3.5 hours
Power supply	5 V DC/1 A
Power consumption	Max. 650 mA
Operating temperature	14° F – 122° F
Dimensions	130 × 90 × 27 mm
Weight	200 g
Certifications	FCC

\*The range depends on the ambient conditions (e.g. mobile phone towers, high-tension electricity pylons, power lines, ceilings and walls, etc.).

If the conditions are unfavourable, the range may be very restricted.