

Technaxx® * User Manual

FULL HD Birdcam TX-165

The Declaration of Conformity for this device is under the Internet link: **www.technaxx.de/** (in bottom bar “Konformitätserklärung”). Before using the device the first time, read the user manual carefully.

Service phone No. for technical support: 01805 012643 (14 cent/minute from German fixed-line and 42 cent/minute from mobile networks).

Free Email: **support@technaxx.de**

The support hotline is available Mon-Fri from 9 am to 1 pm & 2 pm to 5 pm

If you drill a hole in the wall, please make sure that power cables, electrical cords and/or pipelines are not damaged. When using the supplied mounting material, we do not take the liability for a professional installation. You are entirely responsible to ensure that the mounting material is suitable for the particular masonry, and that the installation is done properly. When working at higher altitudes, there is danger of falling! Therefore, use suitable safeguards.

Keep this user manual for future reference or product sharing carefully. Do the same with the original accessories for this product. In case of warranty, please contact the dealer or the store where you bought this product.

Enjoy your product * Share your experience and opinion on one of the well-known internet portals

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Warnings

- Do not attempt to disassemble the device, it may result in short-circuit or even damage.
- Do not drop or shake the device, it may break internal circuit boards or mechanics.
- Keep the device in dry and ventilated environment. Avoid high humidity and high temperature. Also batteries should not be exposed to excessive heat or direct sunlight.
- Keep the device away from little children.
- The device will be warm after using for too long time. This is normal.
- Please use the accessory attached to the package.

Disposal

Waste electrical equipment from private households

- If you no longer have any use for the device, hand it in free of charge at a public collection point designated for old electrical devices.
- Under no circumstances should old electrical equipment be disposed of in the residual waste.

Further notes on disposal

- Always return the old electrical equipment in such a way that its subsequent reuse or recycling is not impaired. Batteries must be removed beforehand and damage to containers containing liquids must be avoided.
- Waste electrical equipment may contain harmful substances. If the device is handled improperly or damaged, this may result in damage to health or contamination of water and soil during subsequent recycling.



Products marked with this symbol meet all applicable community regulations of the European Economic Area. Technaxx Deutschland GmbH & Co KG has issued a "declaration of conformity" in accordance with the applicable directives and relevant standards. has been created. This can be viewed at any time upon request.



Security and Disposal Hints for Batteries: Hold children off batteries. When a child swallowed a battery go to a doctors place or bring the child into a hospital promptly! Look for the right polarity (+) and (–) of batteries! Always change all batteries. Never use old and new batteries or batteries of different types together. Never short, open, deform or load up batteries! **Risk of injury!** Never throw batteries into fire! **Risk of explosion!**

Batteries can be returned free of charge after use in retail stores. The end user is legally obliged to return used batteries. Separate collection and recycling of old batteries for the environment and health. Remove batteries before disposing of the device.

Hints for Environment Protection: Packages materials are raw materials and can be recycled. Do not disposal old devices or batteries into the domestic waste. **Cleaning:** Protect the

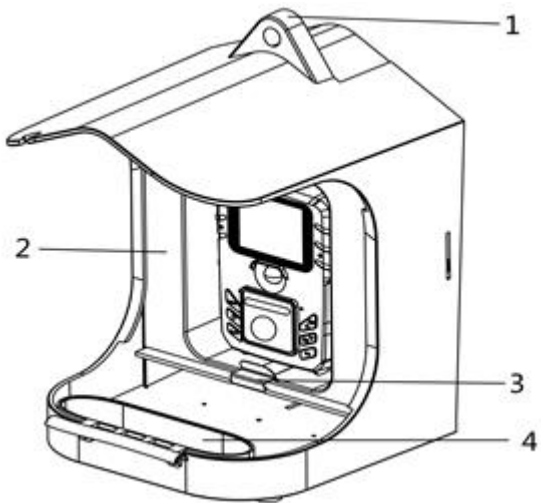
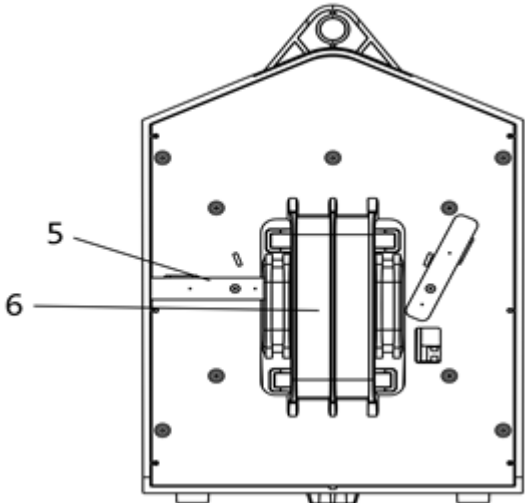


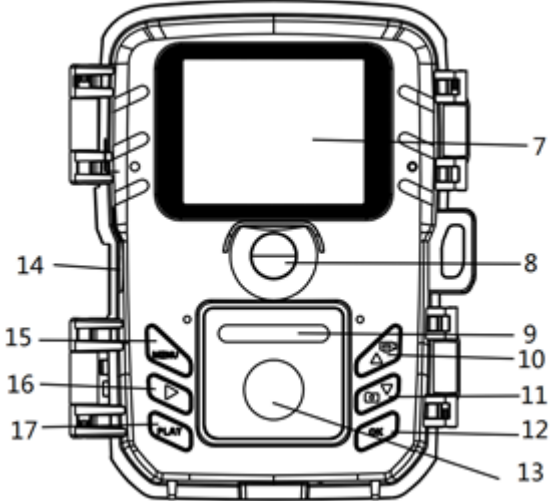
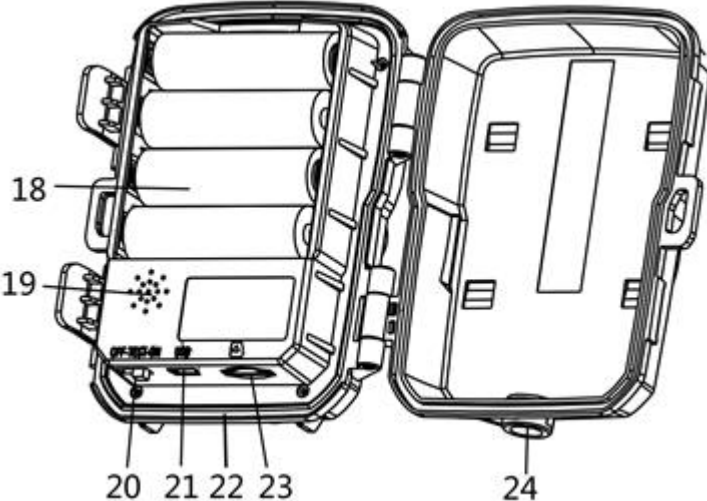
device from contamination and pollution (use a clean drapery). Avoid using rough, coarse-grained materials or solvents/aggressive cleaner. Wipe the cleaned device accurately. **Important Notice:** Should battery fluid leak from a battery, wipe the battery case with a soft cloth dry. **Distributor:** Technaxx Deutschland GmbH & Co.KG, Konrad-Zuse-Ring 16-18, 61137 Schöneck, Germany

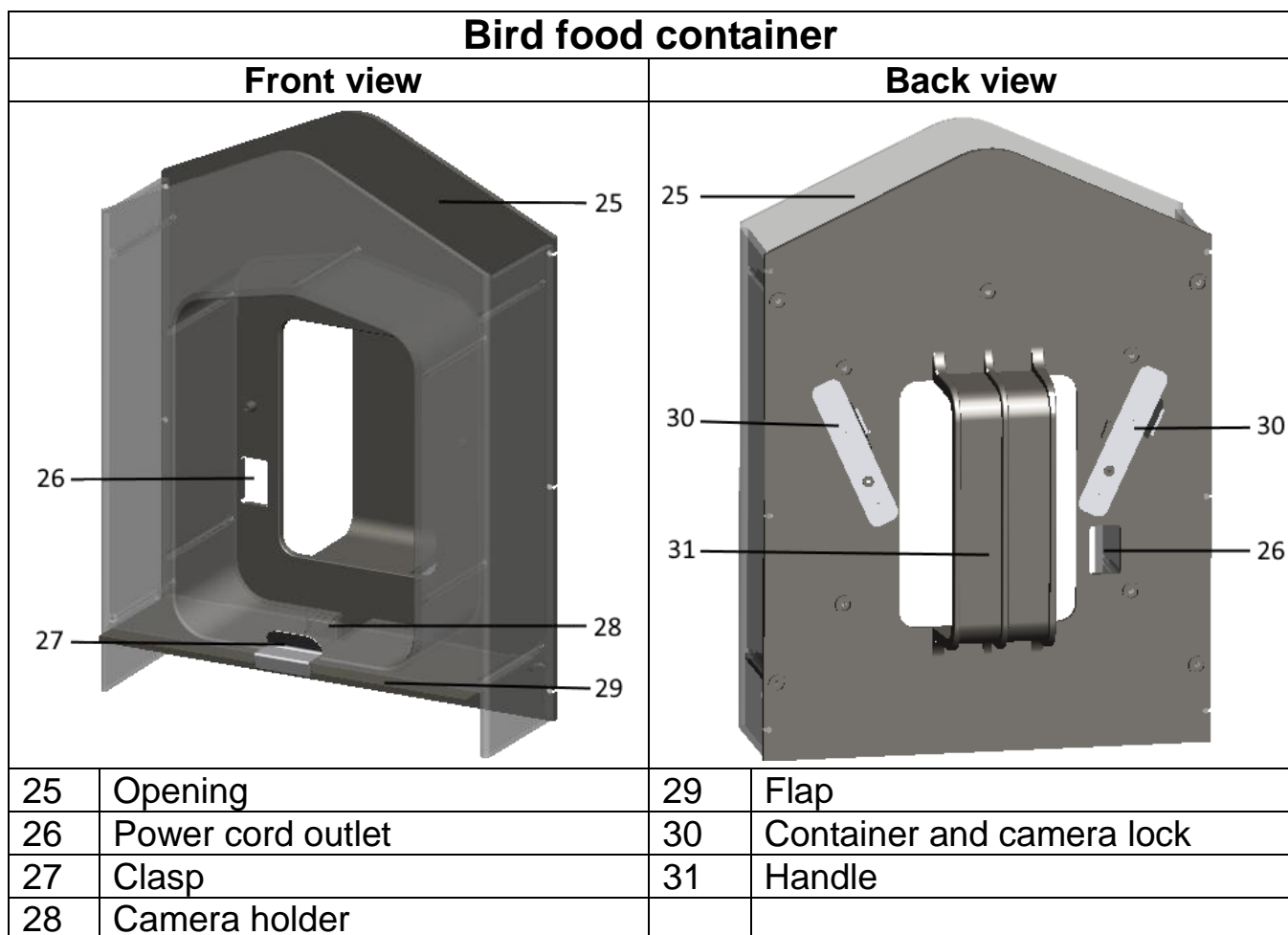
Features

- Battery operated for indoor and outdoor use
- Ideal for recording and observing birds (short lens focus 6-15cm; big viewing angle of 120°)
- FullHD video resolution 1080p
- Slow motion videos with up to 25FPS
- 2" (5cm) TFT LCD display
- 1/3.2" CMOS sensor with 8MP
- Functions: video, photo, video & photo or slow motion
- PIR sensor (~20cm) & IR range (~50cm) with 940nm LEDs for night recordings
- Trigger time 0.3 seconds
- Built-in microphone & speaker
- Removable bird food container for approx. 150g bird food
- Tit dumplings hook
- Removable water basin
- MicroSD card** up to 512GB (**not included in delivery)
- Camera protection class IP56 (dust proof & heavy splash water proof)

Overview

Bird house			
Front view		Back view	
			
1	Hanging Hole	4	Basin
2	Bird food container	5	Bird food container and camera lock
3	Bird food flap with lock	6	Bird food container handle

Camera			
Front view		Inside view	
			
7	Display screen	16	Right button
8	PIR sensor (Motion sensor)	17	Playback button
9	IR LEDs	18	Battery compartment
10	Up/ Video button	19	Speaker
11	Down/ Photo button	20	ON-TEST-OFF switch
12	OK/ Shot button	21	Micro USB port
13	Lens	22	Microphone
14	DC power socket (3.5x1.35mm)	23	Micro SD card slot
15	Menu button	24	Tripod slot



Power supply

→ Before use, open the camera case and install the 4x AA batteries* 1.5V (*included) in the correct polarity.

→ Extended Information for Power supply

- The device does not work with a battery voltage lower than 4.4V.
- Rechargeable batteries will have a really short working time. We do not recommend using them.

Note: For external power supply you could also use the Solar Panel TX-172.

Operating time / battery life

Battery life is highly dependent on the settings selected, the number of times the motion sensor is triggered by animals/birds, and the ambient temperature (ideally 20-25°C) of the camera. Low temperatures in winter stress the batteries and reduce their performance, resulting in shorter battery life.

In the following setting examples:

- With the default or factory settings, an operating time of up to 6 months is achievable. With a 32GB MicroSD memory card, up to 9800 images can be stored with these settings. If you use these settings, the memory card is already full after just under 4 months.

- If one changes the following settings compared to the default settings, then one gets an operating time of about 3 weeks.

- Mode from photo to photo & video
- Video length from 10s to 3s
- Recording interval from 20min to 15min

With a 32GB MicroSD memory card, you can store up to 1300 pictures and 1300 videos. If you use this, the memory card is already full after just under 2 weeks.

● If you change the following settings compared to the default settings, then you get an operating time of about 2 days.

- Mode from photo to photo & video
- Video length remains 10s
- Recording interval from 20min to 5s
- Slow motion from off to on

With a 32GB MicroSD memory card, you can store up to 450 pictures and 450 videos. If you use this, the memory card is already full after approx.1 day.

Inserting the memory card

● The camera has no built-in memory, therefore insert a formatted MicroSD card** up to 512GB (**not included) for saving files. We suggest to use class 6 or above high speed card.

Formatting: Format memory cards up to 32GB in FAT32, memory cards from 64GB and higher into exFat.

Attention: Do not insert the MicroSD card forcibly; refer to the marking on the camera. The MicroSD card should have same temperature like the ambient temperature. The camera will be short-circuiting influenced by environment temperature and humidity. Notice protection for the camera when using it outdoor.

● If the capacity of MicroSD card is full, the camera will stop recording automatically, when Endless Capture is OFF.

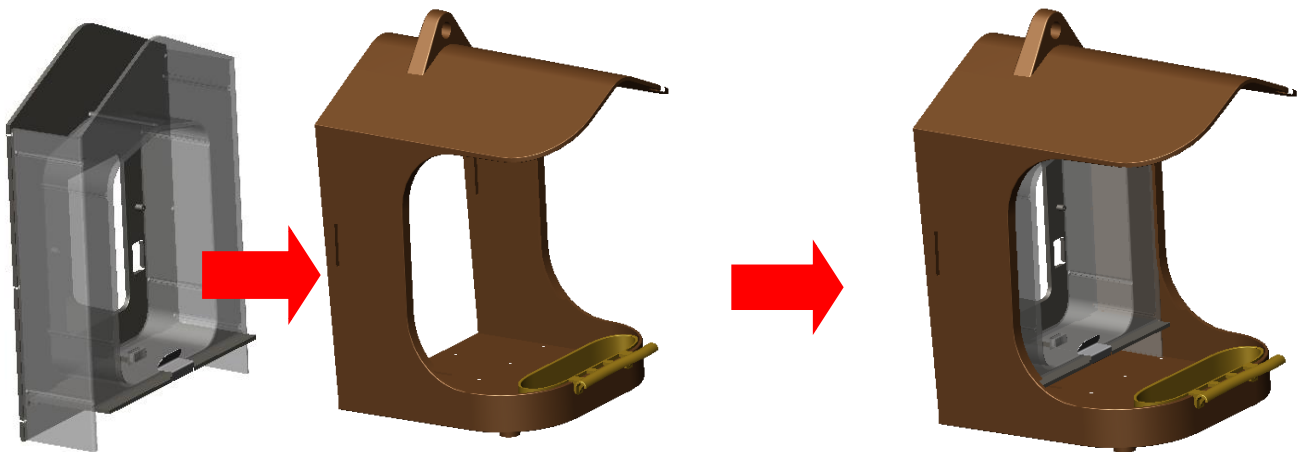
● Press the edge of the card gently to pop-out the MicroSD card.

Instructions for the Birdhouse

Fill in birdseed:

1. Check if the moveable flap is closed by the clasp.
2. Check whether the container locks are in the vertical state.
3. Remove the container from the bird house.
4. Fill in the birdseeds from the top of the container.
5. Push the container back into the bird house in the direction shown in the figure below. It will stop when you push it in place correctly.

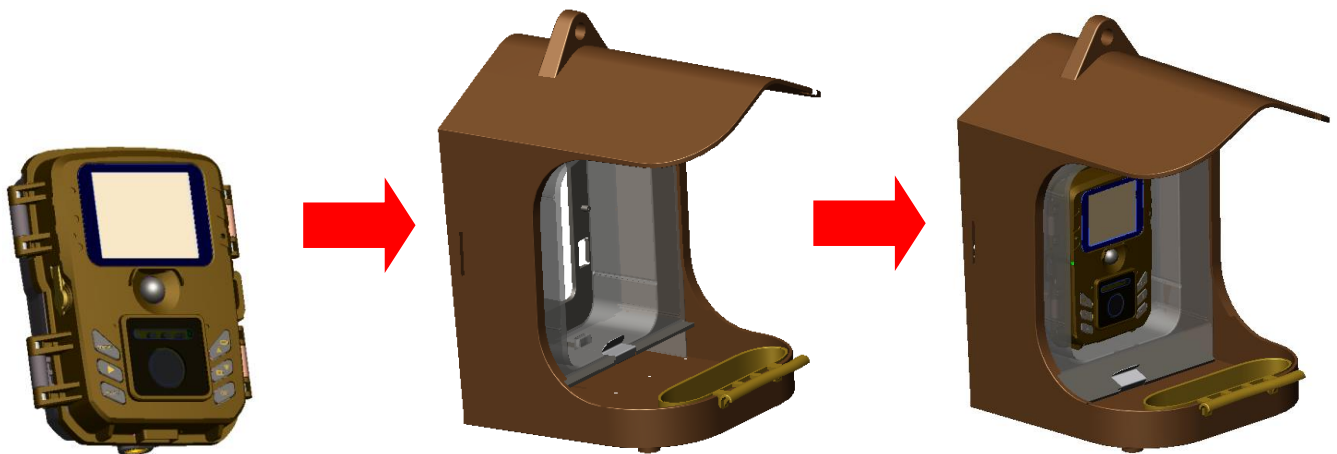
Assembly:



Inserting camera:

6. Before placing the camera in to the container, make sure you have inserted batteries, a MicroSD card and you have done your personal settings, if necessary. The camera is prepared and set from factory to start right away. Only if you would like to have slow motion videos instead of normal videos you need to set the button to TEST and turn on slow motion in the menu. If you are done you have to set the button to ON and close the camera.
7. For installing the camera, insert the camera from top to bottom into the camera holder of the container. Then flip the two container locks on the back of the container from vertical into horizontal position. Insert each lock into the slot of the bird house and into the strap slot of the camera. The camera and the container are fixed in the bird house.

Assembly:



Note: ● If you want to connect an external power supply, you should do so between steps 7. and 8. Insert the power cable before inserting the camera to the camera holder through the power cord outlet. Pull the other end of the cable out of the outlet and then insert the camera from top to bottom into the camera holder of the container.

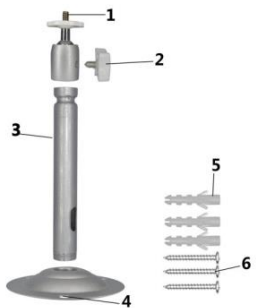
● If the camera does not require external power and runs on batteries, insert the rubber plug of the camera's DC jack into the DC jack to ensure waterproofing.

8. If you use the bird house without a stand, put the house on a flat surface or hang it on a tree with a string. Add water to the basin and knock down the clasp of the flap, the bird food will flow down.

Mounting the Bird house

Wall mount without mounting belt

You can mount the house permanently on a wall using the supplied wall mount. Before mounting the house, you should ensure that all existing screws are tight.

Components	Required tools	
1. Tripod screw 2. Bracket fixing screw 3. Bracket support rod 4. Drill holes / belt holes 5. Wall plugs 6. Screws	● Drill ● 6 mm masonry/concrete drill bit ● Phillips head screwdriver	

Install Steps

- Mark the drill holes by holding the foot of the wall bracket at the desired mounting location and marking the hole positions.
- Use a drill with a 6 mm drill bit to drill the required holes and insert the plugs and insert the wall plugs flush with the wall.
- Screw the wall bracket to the wall using the supplied screws.
- Mount the house on the tripod screw and screw the house a little way on (about three turns).
- Turn the house in the desired direction and lock it with the lock nut.
- To move the house into its final position, undo the pivot bolt a little, position the house and fix the position by tightening the pivot bolt again.

Wall mount with mounting belt

Use the mounting belt and the wall mount to hang up the house to any object (e.g. tree) you can get the belt around.

Pull the belt through the rectangular oblong holes of the wall mount bottom and put the belt around the desired object. Now fasten the belt. Screw the installed bird house on the screw at the bottom of the bird house of the bracket and fix it and adjust the position of the bird house.

Railing mount

Use the railing mount to mount the house to any round railing with a diameter between 17-32mm. Unscrew the tightener. Put the U-angled screw around the railing. Now fasten the tightener again. Screw the installed bird house on the screw at the bottom of the bird house of the bracket and fix it and adjust the position of the bird house.

Basic Operations

Slide switch explanation

First time start in Test mode select the device language. Not possible in ON mode!

Switch the MODE button to “Test” to turn on the camera for settings.

Switch the MODE button to “ON” to turn the camera in recording mode.

Switch the MODE button to “Off” to turn off the camera.

System Setup

Switch MODE button to “Test”, then you can set the system parameters.

→ Press Up/Down button to switch between Video and Photo mode for manual use in Test mode.

→→ Press Menu button to open the setup menu.

→→→ Press Up/Down button to scroll through all menus. Then press OK button to enter the options interface.

→→→→ Press Up/Down button to scan all options. And press OK button to confirm options.

→→→→→ Press MENU button again to turn back to last menu or exit the setup menu.

Setup menu and function as below:

Mode: [Photo] (default) / [Video] / [Photo & Video]. → Select and press OK button to confirm.

Set the working mode	Photo mode (default)	Camera only takes pictures.
	Video mode	Camera only records video.
	Photo & Video mode	Camera will take a photo first, and then start to record video.

Photo Resolution: Set the image resolution: the bigger the resolution → the higher the sharpness! (It will take more space either.)

[20MP: 5200x3900 (interpoliert)] / [16MP: 4608x3456 (interpoliert)] / [12MP: 4000x3000 (interpoliert)] / [8M: 3264x2448] (default) / [5M: 2592x1944] / [3M: 2048x1536] / [1M: 1280x960]

→ Select and press OK button to confirm.

Photo Series:

Set photo number of continuous shooting	Photo mode	Camera will take photos continuously
	Options: [1 photo] (default) / [2 photos in series] / [3 photos in series] / [10 Fotos in series].	
	→ Select and press OK button to confirm.	

Video Resolution: [1920x1080] (default) / [1280x720] / [1280x720 60FPS] / [848x480] [720x480] / [720x480 100FPS] / [640x480] / [320x240]. → Select and press OK button to confirm. Set the video resolution: the bigger the resolution → the shorter the recording time.

Video length

Video length	Set the duration of recording a video clip → shortest time is 3 sec. / longest time is 10 min.
	Options: 3 sec. – 10 min. (default is 10 sec.)
→ Select and press OK button to confirm.	

Slow motion

Slow motion	Open this function → camera will record every video as slow motion video instead of a normal video.
	Options: [On] / [Off] (default).
→ Select and press OK button to confirm.	

Info: The resolution must be selected under video resolution.

Resolution	Recording FPS	Playback FPS
1920x1080	30	10
1280x720	30	10
1280x720 60FPS	60	20
848x480	30	10
720x480	30	10
720x480 100FPS	100	25
640x480	30	10
320x240	30	10

Audio recording

Audio recording	Open this function → camera will record audio when recording video. Note: Slow motion videos are recorded without sound!
	Options: [On] (default) / [Off].
→ Select and press OK button to confirm.	

Shot Lag: 5 sec. – 60 min. → Select and press OK to confirm.

“Short Lag” is the time between the current video and the next video. Set the time of delay shooting when the camera detects the motion. Within the selected time, the camera will not record any image or video. It can avoid storing too much of the same event and saving more storage. (Default is 20min.)

Sensitivity Motion Sensors: [Low] (default) / [Middle] / [High].

→ Select and press OK button to confirm.

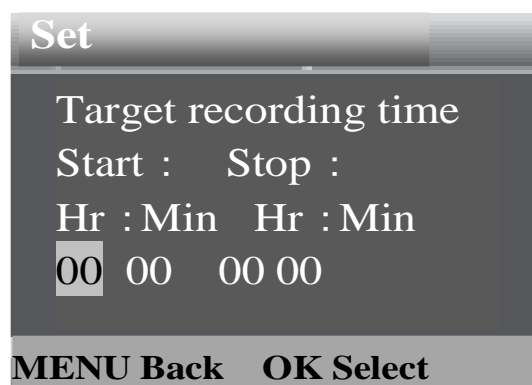
Test the sensitivity and find the correct detection zone for your purpose. Set the sensitivity of the sensor. **Note:** The temperature can also influence the sensor sensitivity.

Low	Distance 0-0.20m	For Reference: The distances were tested with a bird about 3cm in diameter and 10cm in height.
Middle	Distance 0-0.23m	
High	Distance 0 -0.26m	

Target Recording Time

Set the target recording time of the day. With this option you can preselect when recordings should been taken.

As shown in right picture, you can set the start and stop time. The camera will work just in the set time slot. In other time, the camera will keep in standby state.



Options: [On] / [Off] (default).

→ Press OK to confirm.

Note: If start time and stop time are the same, the working time is 24 hours.

Language: (set the language display on screen): [English] / [German] / [Danish] / [Finnish] / [Swedish] / [Spanish] / [French] / [Italian] / [Dutch] / [Portuguese].

→ Select and press OK button to confirm.

Endless Capture: [On] / [Off] (default). → Select and press OK button to confirm.

If you activate Endless Capture the device will capture photo or/and video, depending on the mode you choose, until the storage of the MicroSD card is reached. It is also called loop function.

When the storage is full the recording will move on that means the oldest file (photo/video) will be deleted, every time a new motion is detected.

Time & Date: [Set time & date] / [Time format] / [Date format].

→ Select and press OK button to confirm.

Set time & date	Press Up/Down button to adjust the values. Press right button to choose day, month, year, hour, minute → Press OK button to confirm.
Time format: selected between 24h (default) & 12h.	Press Up/Down button to adjust the values. → Select and press OK button to confirm.
Date format: select between [dd/mm/yyyy] (default) / [yyyy/mm/dd] / [mm/dd/yyyy].	Press Up/Down button to adjust the values. → Select and press OK button to confirm.

Photo Stamp: (stamp the date & time on the photos or not): [Time & date & logo] (default) / [Date & logo] / [Time & date] / [Date] / [Off]. → Select and press OK button to confirm.

Password Protection: [On] / [Off] (default). → Select and press OK button to confirm.

Set the power-on password of the camera. The password is four digits, each digit ranges from 0 to 9. **Attention:** If you set the password, write it down to make sure that you do not forget it!

If you forget the password, go to www.technaxx.de, Support and search the product. Or contact the support@technaxx.de for help.

Beep Sound: [On] / [Off] (default). → Select and press OK button to confirm. Open den Beep sound menu to turn On or Off the confirmation sound of the buttons.

Format Memory Card: [Yes] / [No] (default). → Select and press OK button to confirm.

Attention: Formatting the memory card will delete all data permanently. Before using a new memory card or a card that has been used in another device previously, format the memory card. Format memory cards up to 32GB in FAT32, memory cards from 64GB in exFat.

Serial No.: [On] / [Off] (default). → Select and press OK button to confirm.

Set the unique serial number for the camera. The number is four digits, each digit ranges from 0 to 9.

Reset Settings: [On] / [Off] (default). → Select and press OK button to confirm. Restore the camera to factory default settings including password, serial number and so on.

Version: Look up the Firmware information of the camera.

Manually take photos / video, playback: Switch the Mode Button to “Test”. In this mode, you can take photos, record video and playback files manually.

● **Take photos manually:** Press Capture button to switch to photo mode. Press Shot button to take a picture.

● **Record video manually:** Press Video button to switch to video mode. Press Shot button to start to record a video clip. Press Shot button again to stop recording.

● **Playback:** Press Playback button (17) to enter the playback interface. Press Up/Down button to scroll through photos or videos. If you want to playback video, press OK button to play the video. Press OK button again to pause. Press Menu button to stop playback. Press Playback button (17) again to exit the playback mode. Under “Playback” press the Menu button for following options:

Delete the current photo or video		Options: [Cancel] / [Delete] → Press OK to confirm
Delete all files	Delete all photo and video files saved on the memory card.	Options: [Cancel] / [Delete] → Press OK to confirm
Activate slide show	Playback the photos in slide way. → Press OK button to stop playing.	Each photo display 3 sec.
Write protect	Lock the file. It can avoid accident deletion. → Select and press OK button to confirm.	Options: [Write-protect current file] / [Write-protect all files] / [Unlock current file] / [Unlock all files].

Working Mode

- Switch the Mode Button to “On”. After turn on the camera, the screen will display 15 seconds countdown. Then the LEDs and screen will go out. The camera begins to operate independently and enter standby mode.
- If the wild animals enter the detection range of the motion sensors, the camera will be activated and detect the motion trail. If the wild animals continue to move to the detection zone of the sensor, the camera will take photos or record video automatically.
- When the wild animals leave the detection zone of the sensors, the camera will be deactivated and turn back to standby mode.

Night Mode

- During the night, the infrared LEDs will turn on automatically, to provide necessary light for taking pictures/videos. This makes it is possible to taking picture at a distance about 50cm without overexposing the night.
- However, reflective objects such as traffic signs can cause overexposure if they are located within the recording range. In night mode, the pictures just can display white and black. When record a video for long time in the evening, the low voltage may have a great influence on the stability of the device.

Download Files to a computer (2 ways)

- Inserting the MicroSD card into a card reader.
- Connecting the camera to a computer using the supplied USB cable.

Using a Card Reader

- Pop-out the memory card from the camera and insert it into a card reader adapter. Then connect the card reader to a computer.
- Open [My Computer] or [Windows Explorer] and double-click the removable disk icon that represents the memory card.
- Copy image or video files from the memory card to your computer.

Connecting the camera to a PC by the USB Cable

- Connect the camera to the computer via USB cable. The screen will display „MSDC”.
- Open [My Computer] or [Windows Explorer]. A removable disk appears in the drive list. Double-click the "Removable Disk" icon to view its contents. All files are stored in the folder named „DCIM”.
- Copy the photos or files to your computer.

Technical specifications

Image sensor	1/3.2" CMOS 8MP	
Lens focus	Fixed 0.06-0.15m	
Lens	f=2.8mm, F/NO1.6, FOV=120°, Auto IR filter; (scratchproof and shockproof)	
Display	2.0" TFT LCD display	
Video resolution	[1920x1080] / [1280x720] / [1280x720 60FPS] / [848x480] / [720x480] / [720x480 100FPS] / [640x480] / [320x240]	
Photo resolution	20MP (5200x3900 interpolated), 16MP (4608x3456 interpolated), 12MP (4000x3000 interpolated), 8MP (3264x2448), 5MP (2592x1944), 3MP (2048x1536), 1MP (1280x960)	
Video length	3 sec.–10 min. programmable	
Photo series	1,2,3,10	
File format	JPG/AVI	
Infrared	4x IR LEDs (940nm), 0.03-0.5m range	
PIR	60° viewing angle	
Trigger distance	0-0.2m (below 25°C at the Normal Level)	
Trigger time	0.2-0.3 seconds	
Trigger interval	5 sec.–60 min. programmable	
Bird food container	~150g	
Auto-distinguish images	Color images in daytime/black & white night images	
PC interface	Micro USB2.0	
Memory	External: MicroSD** card (up to 512GB, Class10) [**not included in delivery] 32GB = 1100 records (550 photo and 550video)	
Power supply	4x AA batteries* (*included); external 6V power supply** at least 1,5A (hollow plug 3.5x1.35mm)	
Standby time	~6 months, depending on settings and used battery quality	
Lockable / Password protection	Optional / 4-digit numbers	
Working temperature	–10°C up to +50°C	
Weight / Dimensions camera / Material	141g (without batteries) / (L) 8.7 x (W) 4.4 x (H) 10.7cm / ABS	
Weight / Dimensions House with seed box and basin / Material	475g / (L) 19 x (W) 15.2 x (H) 22.8cm / ABS	
Package contents	Technaxx FULL HD Birdcam TX-165, Micro USB cable, mounting belt, wall mount, railing mount, 3x screws & 3x dowels, 4x AA batteries, User Manual	

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject 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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 harmful interference to radio or television 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.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

US Warranty

Thank you for your interest in the products and services of Technaxx Deutschland GmbH & Co.KG. This Limited Warranty applies to physical goods, and only for physical goods, purchased from Technaxx Deutschland GmbH & Co.KG.

This Limited Warranty covers any defects in material or workmanship under normal use during the Warranty Period. During the Warranty Period, Technaxx Deutschland GmbH & Co.KG will repair or replace, products or parts of a product that proves defective because of improper material or workmanship, under normal use and maintenance.

The Warranty Period for Physical Goods purchased from Technaxx Deutschland GmbH & Co.KG is 1year from the date of purchase. A replacement Physical Good or part assumes the remaining warranty of the original Physical Good or 1 year from the date of replacement or repair, whichever is longer.

This Limited Warranty does not cover any problem that is caused by:

- conditions, malfunctions or damage not resulting from defects in material or workmanship

To obtain warranty service, you must first contact us to determine the problem and the most appropriate solution for you.

Technaxx Deutschland GmbH & Co.KG, Kruppstrasse 105, 60388 Frankfurt am Main, Germany

* www.technaxx.de * support@technaxx.de *