

Tecell Elektronik

Hyperview Cam HC-200

User Manual



www.hyperviewcam.com (English)

www.hyperviewcam.de (Deutsch)

Ver. 2016/09/01

Thank you for purchasing HyperviewCam HC-200.

This manual contains important safety information, product description and instructions to use HC-200
The latest version of this guide can be downloaded from the website www.hyperviewcam.de
Before using the product, please read the contents of this manual!

Technical or editorial errors and improvements are possible.
The product and its properties can be modified to the user without prior notice at any time.

Warranty and Support

The webpage and call center address information: <http://www.hyperviewcam.com>
User can also download the most actual information from this website.
HyperviewCam camera is provided with 2 years warranty.

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Input: 13,8-12V DC



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1 Safety and Precautions (1/2)

Warning

If you do not comply to following content, it may cause damage to users and goods!

Power supply

- Do not use damaged or not-original power cable. Damage of the product and car may occur.
- Operate the camera only with for the camera suitable voltage (11,2-13,8V DC).

Installation

- This camera is not an outdoor device. It is developed for installation and use in interior only.
- Leave the installation of permanent power to professional electrician, to avoid damage of car and camera.
- Do not install camera at the places with high humidity or highly flammable liquid or gas. Explosion or fire may be caused.
- Do not keep camera inside of a vehicle under direct sunlight and expose it to high temperatures. This can be the cause of a fire or malfunction.
- Install the camera so that it does not obstruct the driver's vision. Viewing disability may cause serious accidents, injuries and damage.
- We recommend to install camera so, that it see through area cleaned by wipers.

- Plug in the cables into camera and car correctly. Otherwise, fire or malfunction may occur.

Usage 1

Keep away from highly flammable and explosive gases and liquids. This may cause an explosion or fire sit up.

Do not insert metal or flammable substances at the slot of memory card or the code. Electric shock or fire may be caused.

Do not operate with wet hands. This may cause an electric shock.

Do not leave the products and accessories around babies and children. Swallow small accessories can cause serious injury or even death.

Do not cover the operating product with a cloth. By heating, a fire or a camera or microSD card malfunction may occur.

Do not place operating camera on some surface nor cover with the cloth. It will prevent camera cooling by natural air flow through camera. Then camera damage or burn may occur.

1 Safety and Precautions (2/2)

Usage 2

- Do not disassemble the camera and modify anything. If you have problems please contact our support or send the camera to an authorized repair center.
- Do not leave or place the product and accessories near animals. Explosion or malfunction may occur due to damage caused by animals.
- When not using the product for an longer period, remove the power cord, otherwise fire or malfunction could occur.
- Do not move the camera while it is connected to the cigarette lighter or the power cord. This might cause fire or electric shock.
- Do not configure and control the camera during driving. It can cause accidents.

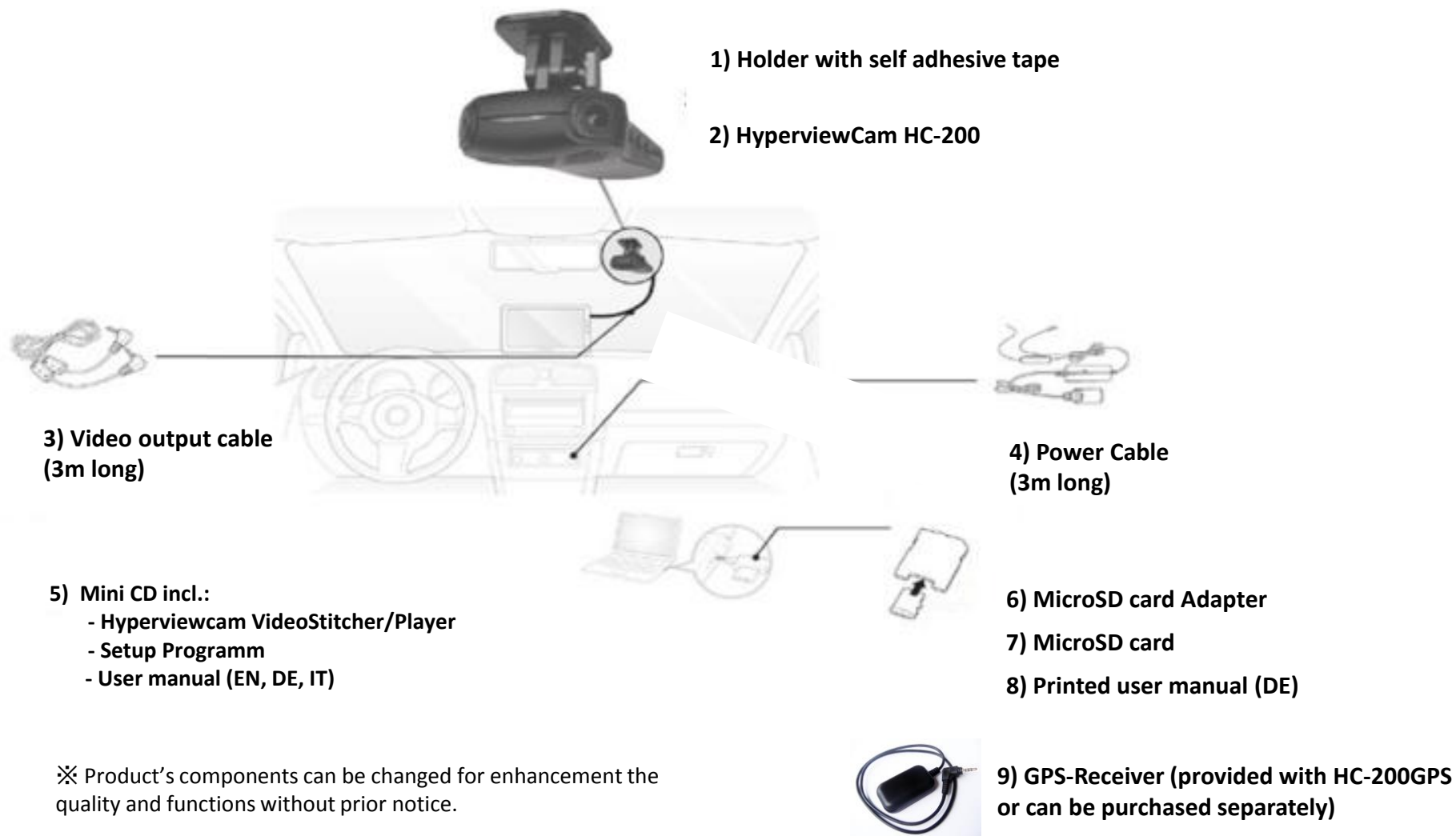
Notice!

- We continuously improve our products and documentation and reserve the right to do substantive changes to the documentation, camera and accessories software and hardware without prior notice.
- Most actual version of this user instructions can be found on our website: <http://www.hyperviewcam.com>
- Tecell Elektronik GmbH assumes no responsibility for the accuracy of the content or for any damages arising from the use of the camera and the user manual.
- We are grateful for your hints to eventual mistakes or for suggestions for improvement in order to offer you in the future better performance of our products.
- You can contact us via email: support (at) tecell.at

2 Provided Components and Parts

(Model HC-200GPS includes GPS-Receiver)

Components



※ Product's components can be changed for enhancement the quality and functions without prior notice.

3 Optional Components



SD-Card to USB Adapter

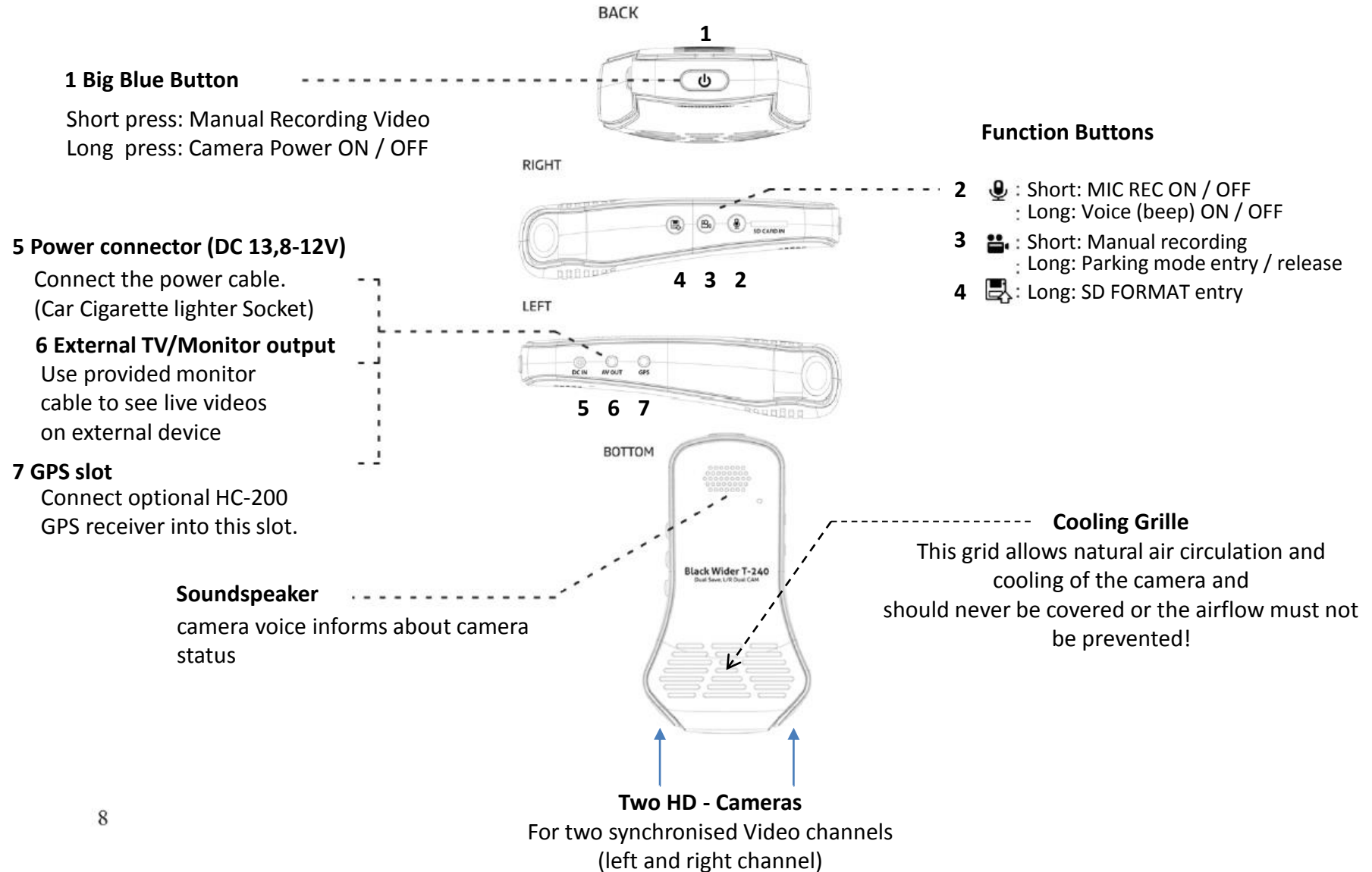


GPS-Receiver

Note

Optional parts you can purchase from your HyperviewCam supplier or www.hyperviewcam.com

4 Camera



5 Installation (1/2)

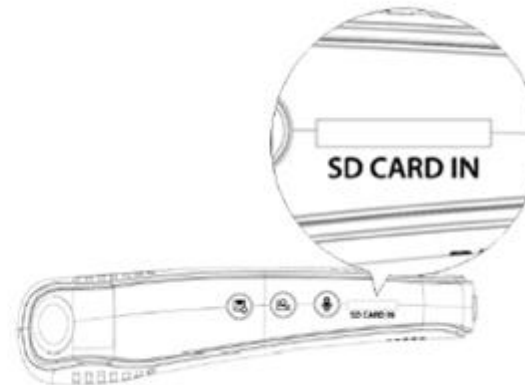
Identify appropriate place for the camera

- In most cases is the best place behind the mirror in area cleaned by wipers.



Notice by wipers cleaned area!
Camera should not obstruct driver view!
Camera can be mounted hanging on windshield
or reversely on armature.

Insert the MicroSD card into camera



Insert micro SD card always with the gold color contacts
facing down, towards "SD CARD IN"!

5 Installation (2/2)

Join the camera and the holder. 1

Insert the power cable jack into camera.



Optionally you can connect With provided TV cable also external monitor to see Videos* live.

*With the command tvout:x; //x: 0, 1 (wide, narrow) you can set how wide will be video provided on TVout slot

2.1 Mount camera hanging



or inversely, 2.2 staying

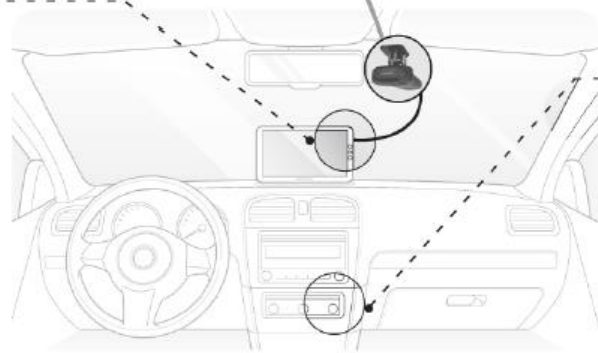


2

Notice by wipers cleaned area on the windscreen. Find a suitable location for the camera, probably behind the mirror. Remove the protective strip from the adhesive foil and attach the bracket with the camera on 2.1 the windscreen or 2.2 inversely on the armature.



Insert cigarette lighter jack into cigarette lighter slot. Camera recognise quick increase of voltage and turns On automatically. Camera records video when camera voice says "Normal recording" or "Normal mode" enabled".



6 Configuration

Nr.	Bedeutung	Beispiel	Wertebereich	Standardwert
1	Soundspeaker volume	spk:8;	1-8	6
2	Microphone sensitivity	mic:6;	1-6	6
3	G-Sensor sensitivity (Drive mode)	gsensor:2;	1-5	3
4	G-Sensor sensitivity (Parking mode)	gsensorp:5;	1-5	5
5	Movement recognition sensitivity	motion:2;	1-3	2
	Beep-Tone when individual video start/stop	beep:1;	0 or 1	0
5	Permanent recording	normalsave:1;	0 or 1	1
6	Activate front LED-light when recording video	secureled:0;	0 or 1	0
7	LED1 and LED2 in Parkmode active in Sec.	parkled:0;	0, 5-10	5
8	Rotate recorded videos	rotate:0;	0 normal, 1 opposite	0
9	Videocompression left camera (Mbps)	Camera0:8;	4-12	8
10	Videocompression right camera (Mbps)	Camera1:8;	4-12	8
9	Setup Date and Time	rtc:2014-02-24-00-18-10;	yyyy-mm-dd-hh-mm-ss	actual PC time
10	see date&time in videos	disp_date:1;	0 or 1	1
11	see G-Sensor values in videos	disp_sensor:0;	0 or 1	0
12	see GPS-coordinates in videos	disp_gps:0;	0 or 1	0
13	see Speed (per GPS calcualted)	disp_speed:0;	0 or 1	0
14	Light sensitivity (only default value)	night_brightness:5;	5	5
15	select Videoformat on connector	tvout:1	0 or 1	1 (narrow)
16	Power Off Voltage	poffvol:117;	11,0 – 12,3V	117
17	Parking Voltage	parkvol:125;	12,4 – 13,1V	125

HyperviewCam works in two main modes: 1) driving mode and 2) parking mode.

After switching on, the camera is always in the driving mode.

1) In driving mode:

- 1.1) when default setting or "normal save: 1;" runs the "Permanent recording" (permanent, the camera permanently takes 1-minute videos)
- 1.2) when "normal save: 0;" is "Permanent Recording" disabled (camera takes videos only when button pressed or g-sensor activates recording)
- 1.3) user can press button and so start manual recording (-30 till +15 seconds from pressing the button) and take one 45 seconds long video
- 1.4), G-sensor can activate 1 video recording (camera takes 1 Video -30 till +15 sec. from vibration)

By long pressing the key 3, the user can enable the "parking mode". (for this mode is permanent power supply required)

2) In the Park Mode:

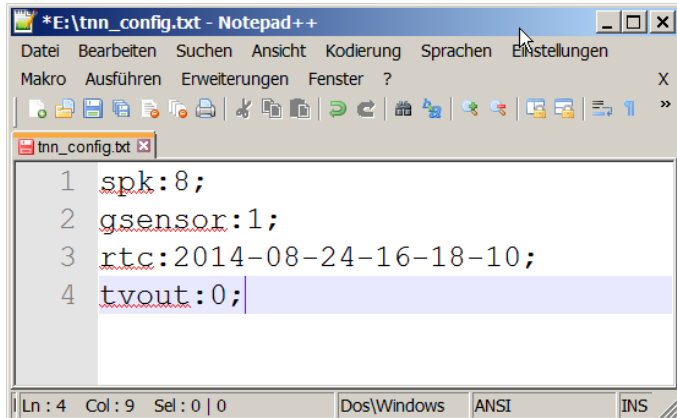
- 2.1) motion detection starts one video recording (-30 till +15 sec.)
- 2.2) user can manually start recording -30 till +15 sec. video
- 2.3) G-sensor can activate recording of one -30 till +15 sec. video due to vibration

7 Configuration of the Camera – manually

Example for the setting of:

Volume, G-sensor sensitivity, date and time and
the broader video on the video output jack.

In a text editor program write following commands and parameters. (see example)



```
*E:\tnn_config.txt - Notepad++
Datei Bearbeiten Suchen Ansicht Kodierung Sprachen Einstellungen
Makro Ausführen Erweiterungen Fenster ?
tnn_config.txt
1 spk:8;
2 gsensor:1;
3 rtc:2014-08-24-16-18-10;
4 tvout:0;
Ln : 4 Col : 9 Sel : 0 | 0 Dos\Windows ANSI INS
```

(Filecoding: ANSI, Filename: tnn_config.txt, Directory: root of microSD-Card)

Save the commands in a txt file named: "tnn_config.txt" into the root directory on the microSD memory card.

Insert the memory card into the camera and turn on the camera.

Each time, when camera power on, it looks after "tnn_config.txt" file in the root directory of the memory card.

If tnn_config.txt file present, camera executes existing commands and then deletes tnn_config.txt" file.

Please note:

Do not forget at the end of each line to put the character "; "!

Misspelled commands are ignored by the camera.

The file "tnn_config.txt" is not deleted until all configuration commands have been executed.

It is not necessary to apply all existing commands each time. Use only those commands that you need.

"RTC" - command configures the date and time and is subject of automatical change. For example, when the camera's internal battery is empty, the camera loses the set date and time. At next start of the camera, the camera automatically configures the date and time on the basis of the last recorded videos in the memory card so the order of the videos, remain maintained based on the date and time.

Alternatively, you can use HyperviewCam setting program, which creates "tnn_config.txt" file and saves it under C:.

(Install from attached MiniCD or download it from [http: www.hyperviewcam.de](http://www.hyperviewcam.de))

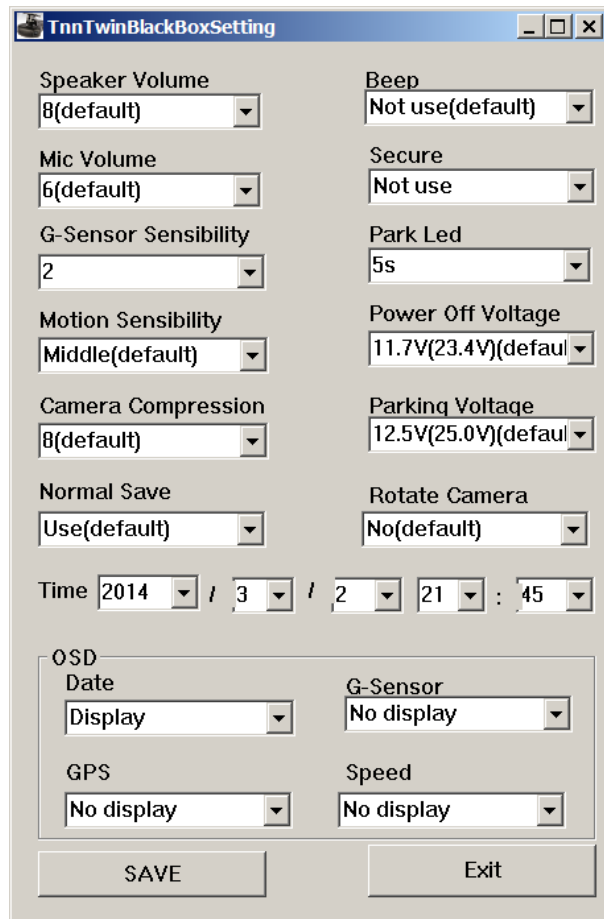
8 Configuration application

Configuration program produces tnn_config.txt file and places it on the "C:" partition.

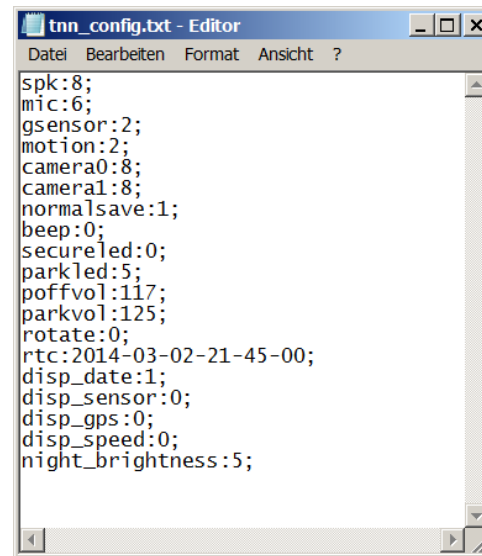
Not necessary commands you can delete in an editor.

Then copy the tnn_config.txt file on the microSD memory card, insert the memory card into the camera and start the camera.

After the start, camera looks every time in the root directory of the memory card, if the file is tnn_config.txt available, it executes the commands and when configuration is finished, camera deletes the file tnn_config.txt on microSD Card.



The screenshot shows the 'TnnTwinBlackBoxSetting' application window. It contains various configuration options organized in two columns. The left column includes 'Speaker Volume' (8(default)), 'Mic Volume' (6(default)), 'G-Sensor Sensibility' (2), 'Motion Sensibility' (Middle(default)), 'Camera Compression' (8(default)), 'Normal Save' (Use(default)), and a 'Time' field set to 2014/3/21 21:45. The right column includes 'Beep' (Not use(default)), 'Secure' (Not use), 'Park Led' (5s), 'Power Off Voltage' (11.7V(23.4V)(default)), 'Parking Voltage' (12.5V(25.0V)(default)), and 'Rotate Camera' (No(default)). At the bottom, there is an 'OSD' section with 'Date' (Display) and 'G-Sensor' (No display) options, and a 'GPS' section with 'No display' for both 'GPS' and 'Speed'. 'SAVE' and 'Exit' buttons are at the bottom.



```
spk:8;  
mic:6;  
gsensor:2;  
motion:2;  
camera0:8;  
camera1:8;  
normalsave:1;  
beep:0;  
secureled:0;  
parkled:5;  
poffvol:117;  
parkvol:125;  
rotate:0;  
rtc:2014-03-02-21-45-00;  
disp_date:1;  
disp_sensor:0;  
disp_gps:0;  
disp_speed:0;  
night_brightness:5;
```

c:\tnn_config.txt



9 Operation

Turn on the camera:

Plug the power cord into the camera.

Plug the other side of the power cord into the 12V DC cigarette socket.

(Camera do not operate with 24V DC!)

When the camera power supply is quickly increased by more than 1V, the camera automatically turns on. (Camera detects the fast rise of voltage!)

After power On, the camera starts in normal mode saying "Normal recording" and it continuously takes 1 min. long video pairs (channel L and R).

You can now e.g.:

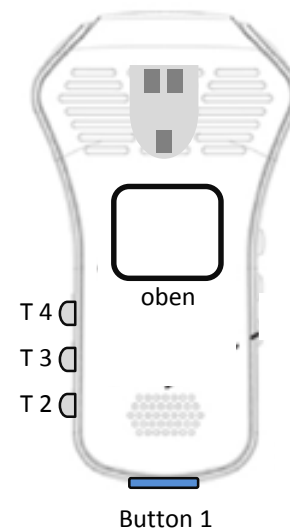
- Press the button1 (T1) or key 3 (T3), then "Manual recording" is triggered.
- Press T3 and hold to switch to "Parking mode" or back to "normal mode".
- Short-Press T2, so that the microphone is switched on/off.
- Long-Press T2, so the voice announcements are turned off/on.
- Long-press T4 to begin formatting the memory card. Short-press T4 button again to confirm the formatting process, or press any other key to not to begin formatting.

With the command "Save normal = 0;" in "Driving mode" you can disable permanent recording. Then camera records 1 video only when video recording is activated manually by pressing the button 1 or 3 or when G-sensor activates video recording.

With the command "normal save = 1;" you can activate the function "Permanent Recording" in driving mode again.

When you take completely new camera into operation, check that the internal battery is charged! Turn the camera on and after about 10 seconds, unplug the power cord out of the camera. If the battery is charged, then you can hear the camera voice telling: "Unstable power supply. Camera turns off. If you don't hear this message, charge the camera by using it for about 30 Min. After approx. 30 min., internal battery should be enough charged to allow camera to complete actual video and say that it turns off because of instable power supply.

When internal battery is empty or damaged and power supply is interrupted, camera can not properly complete last recorded video. Such videos are not playable in video players, but you can recover such videos with HyperviewCam Video Player.



10 Camera modes

1) Driving mode:

After switching on, the camera is in driving mode. In this mode, the function "Permanent Record" is activated: This is the default setting. Also after the execution of command "normal save: 1;" the camera takes continuously 1 min. long videos on (left and right video).

After execution of the command "Save normal: 0;" then video recording of (-30 to +15 sec.) videos is only activated manually, by pressing the button 1 or 3 or by G-sensor.

Videos are stored in the folder "normal".

In Chapter 12 you can read about the maximum size of each folder.

For driving mode use command "gsensor". For parking mode use command "gsensorp". In driving mode mode vehicle is more vibrating then when parked, therefore "gsensorp" values are more sensitive than "gsensor" values for driving mode.

2) Parking mode:

Long-Press key 3 to change between Normal mode and Parking mode.

In parking mode, video recording will be triggered by:

- Motion: When image changes sufficiently rapid the camera detects motion and activates the recording of the video. The motion sensitivity can be set by the command "motion = 2;" [in range 1-3].

- Vibration: When the vehicle is vibrating, the G-sensor can, depending on the selected sensitivity, detect vibration, then recording of video (-30 to +15 sec.) is activated. Sensitivity of the G sensor means "Gsensor: 3;" [in range 1-5]. Those videos are saved in the folder "parking".

For parking mode use command "gsensorp". In parking mode vehicle is resting therefore "gsensorp" values are more sensitive than "gsensor" values for driving mode.

a) Manual recording:

After pressing button 1 or 3, the camera saves a 45-second video, which started 30 seconds before pressing a button and ends 15 seconds after the button is pressed.

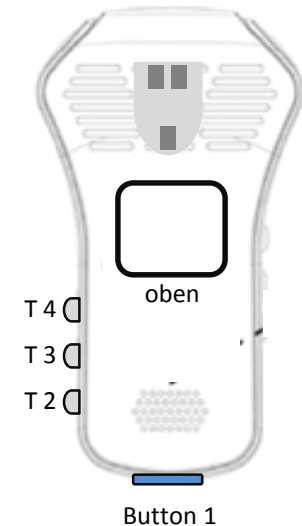
The user can start "Manual Recording" at any time.

Those videos are saved in the folder "user".

b) Event Recording:

Is activated by G-sensor, when a vibration activates recording. The G-sensor has 5 sensitivity levels and can be changed for example with "Gsensor: 1;"

Those videos are saved in the folder "event".



11 GPS Functionality

When using GPS Module for the first time, it can take up to ~17 min. till gps-module finds its position.

Later it takes from few seconds till few minutes to find GPS position, depending on how long GPS-module was not used.



Settings

Language

Select Language

English

Misc

Check for updates on startup

GPS

Set your timezone for GPS data

(UTC+01:00) Amsterdam, Berlin, Bern, Rom, S

GPS [lati 48.0771 longi 16.2325] SPEED[030 Km/h]

GPS

Longitude 48.1283E

Latitude: 16.3874N

Altitude: 198.70

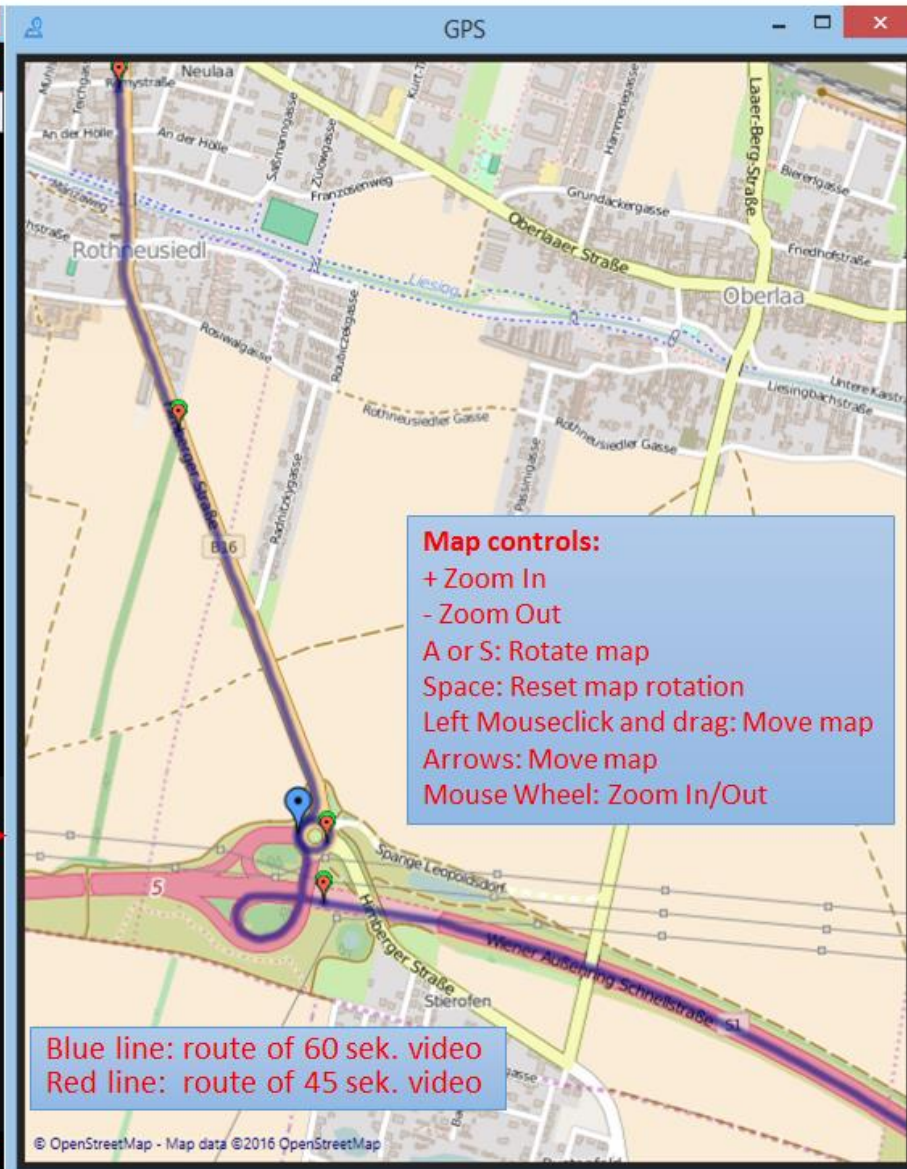
Speed: 31.78km/h

Satellites: 11

Time: 6/19/2016 4:34:57 PM

Validity: A

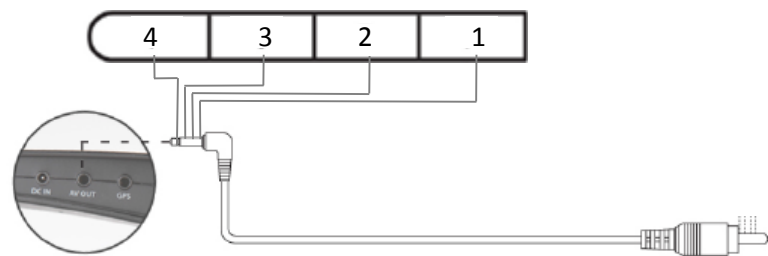
2 Click icon to open online map



3 Select your time zone

12 Exporting Live-videos

Connect the camera with the monitor/TV using the enclosed video cable.



Plug RCA plug in a monitor.

- Use only the enclosed original cable, otherwise the connected devices may not operate properly and cause damage.



	1	2	3	4
External GPS	GND	TX	RX	VCC
AV out	GND	VIDEO	-	AUDIO

13 Memory capacity

Depending on whether the function "Permanent Record" by command "normalsave" [1 or 0]

is enabled or not, the space on the microSD card will be divided accordingly.

In driving mode and permanent recording state (normalsave = 1;) 4 directories are partitioned: Normal/Event/Parking/Manual in the ratio 6:2:1:1. Approximately 10% of the memory can not be used for videos. With 16 GB microSD card, it looks something like this:

Größe der SD Micro-Karte	Ordnername	Normal	Videomodus			
	Ordnergröße	8700 MB	Event	Parking	Manual	
	Videokompression	Zeitliche Videospeicherkapazität [Min.]				
	bei 8 Mbps	145	96	48	48	
bei 16 GB	bei 6 Mbps	217	145	70	70	
	bei 4 Mbps	290	193	96	96	
Da jedes Video eine Minute lang ist, entspricht Minuten-Angabe gleich Anzahl der L-R-Videopaare						
Standardwerte sind fett markiert.						
	Ordnername	Normal	Videomodus			
	Ordnergröße	8700 MB	Event	Parking	Manual	
	Speichergröße	Zeitliche Videospeicherkapazität [Min.]				
	32 GB	290	193	96	96	
bei 6 Mbps	16 GB	217	145	70	70	
	8 GB	145	96	48	48	
Da jedes Video eine Minute lang ist, entspricht Minutenangabe gleich Anzahl der L-R-Videopaare						

Above directory-limitations are relevant only for camera, it means camera don't put more videos into particular directory. If directory is full, camera delete oldest video pair, before storing new video pair. With 16 GB memory card and video compression standard 8Mbps, about 145 "normal" video (L and R channel) are stored. Camera can store double more videos on 32 GB microSD card.

When disabling "Permanent recording" with command "normalsave = 0;" camera will format memory card and establish only 3 directories on microSD card: Event/Parking/Manual (Directory "Normal" is disabled, because of no permanent recording) with the ratio 4: 3: 3. With config command "normalsave = 1;" camera will reformat the memory card and form 4 partitions incl. normal directory for permanent recording videos.

Please note! During each formatting process or mode change by command "normalsave=[0:1];" all data on microSD card (incl. Videos) will be deleted! Move your important videos on another storage medium prior to changing the configuration using the "normalsave".

14 Playing individual video files

- 1 Insert the microSD card from the camera into PC. If necessary, use the supplied card adapter.



- 2 PC recognizes the memory card as a new partition and opens a window to the directory "camera". Click on directory "camera" to see other directories.

Name ▲	Größe	Typ
camera		Dateiordner

Name ▲	Größe	Typ
event		Dateiordner
normal		Dateiordner
parking		Dateiordner
pictures		Dateiordner
user		Dateiordner
camera_config_file.con	1 KB	CON-Datei

- 3 You can select a left or right video file. The player automatically selects the appropriate L or R video file and play them together, then the next in chronological order. Please note that every single HD video file can be more than 60 MB in size and therefore player requires appropriate performance of the PC and sufficient RAM.

Please notice:

- 4 event: by G-sensor activated recordings
normal: "continuous recording"
parking: motion detection + G-sensor activated recordings
user: manually activated recordings (press the button)

Make a backup of important files as often as possible!
Some problem with the memory card may happen and e.g. formatting the memory card (incl. loss of recorded videos) may be necessary to continue to use the camera with this microSD card.

15 VideoStitcher: Player Mode



- 1 Switch to Player mode when in the Stitcher mode
- 2 Switch to Stitcher mode when in the Player mode
- 3 Check if new software version is available
- 4 Settings (select language, enable/disable automatic updates)
- 5 License information
- 6 Online user manual
- 7 Volume
- 8 Open/Close Menu part
- 9 Shift right video vertically till adjusted to left video
- 10 Select type of overlapping ("Left" is recommended)
- 11 Adjust overlapping (move videos left-right till adjusted)
- 12 Select folder with dual Videos (L and R video)
- 13 Select single video pair

- 14 Select folder with stitched videos (single files)
- 15 Select single and stitched video
- 16 GPS Information
- 17 Slider for position in the video
- 18 Go to previous video
- 19 Open GPS online map
- 20 Play
- 21 Pause/Play
- 22 Stop
- 23 Go to next video
- 24 Repeating On/Off
- 25 Switch between: Repeating "All videos" or "1 Video"

16 VideoStitcher: Recovery of defective videos




In Player mode, can Videostitcher repair defective videos. See icon 1 and 2.

Repaired videos have no sound, but can be played normally and exported into one good stitched file.

For example, you use completely new camera and the internal battery is not charged or after long time internal battery no more works. When suddenly power interrupt occur (engine turned off -> camera power supply is interrupted), camera is not able to properly close video before it turns off. Then last recorded video remains unusable.

Therefore, every time when user select directory with videos, player checks if videos in selected directory are ok. If not, defective videos are marked red and also icon 2 appears. If user select particular red video then also icon 1 appears.

After clicking the icon  only selected video red pair will be repaired*.

After clicking the icon  all red video pairs in directory will be repaired*.

*) Repaired means: From red (faulty) video pair (L and R video), an additional, blue (repaired) video pair is produced with the suffix "_fix" and stored in the same folder. The defective red video couple receives the suffix "_bad" and is no longer visible in the Player list. (is in Windows Explorer as "_bad.mp4" file visible). If there is no more space available on the disk for new videos, the application asks the user to define where repaired videos should be saved.

17 VideoStitcher: Stitcher Mode



See Video-Player Mode

- 1 Open video
- 2 File name
- 3 Select size 100, 75, 50 or 25% of the recorded video as an input video size for video editing (100% recommended)
- 4 For size selected under 3, recommended output video size in pixels while maintaining the side ratio (fewer pixels cause loss of quality in the video)
- 5 Confirm to use recommended video output size in pixels
- 6 It is also possible to enter other pixel size for width/vertical
- 7 Adjust optimal overlapping of videos
- 8 Adjust the angle "L" and "R" cameras (0 is recommended)
- 9 Vertical adjustment of right video
- 10 "Radial" corrects fish-eye distortion, "None" means no correction.
- 11 Select type of overlapping of videos ("Left" is recommended)
- 12 Select to which video (L or R) contrast and brightness apply
- 13 Adjust contrast

- 14 Adjust brightness
- 15 Left click on the "K1" or other to set +/- changing step
- 16 Enter parameters numerically or adjust with "+" and "-"
- 17 Select which video affect calibration settings
- 18 Import/Export calibration parameters as Zip file
- 19 Left-click: Reset current parameter values to initial values.
Right-click at 100% scale (3): Calculate and propagate current calib. parameters at 100% also for 75%, 50% and 25% scaling.
- 20 Export current video scene as PNG image
- 21 Cut current video format from 4 sides
- 22 Stop exporting stitched video
- 23 Disable/enable sound in exported video
- 24 Export stitched video
- 25 Shows the progress of the video export to

18 VideoStitcher: Usage

1 Installation

The HyperviewCam VideoStitcher requires at least Microsoft .NET Framework 4 on PC to function properly. Before installing the VideoStitcher, install the Microsoft .NET Framework 4 or higher if it is not already on your PC.

Windows8 already comes with the Microsoft .NET Framework.

The free "NET Framework 4" can be found by googling on the www.microsoft.com website.

The supplied CD contains the HyperviewCam VideoStitcher Installer, which installs the VideoStitcher on your WinXP, Win7, Win8 system.

2 Usage

The VideoStitcher opens after starting in the Player- or in Stitcher-mode.

After the opening of the program click on the icon  for Player- or on the icon  for Stitcher-mode.

When program is closed it saves current settings. Next time Videostitcher starts again with the last settings.


For each camera is necessary to adjust one time individual height adjustment and the overlay.

2.1 In Player mode:

Select directory where dual videos are placed. If available select also directory with stitched videos. Start a video by clicking the video and optionally also click the Play button.

Always first make height adjustment of right video, then adjust overlay.

In Player mode, no fish-eye corrections can be carried out.

You can pause a dual video with the button "Pause", then go to Stitcher-mode by pressing  and there adjust options and export current video, then come back to player, to the same video frame (the same position in video).

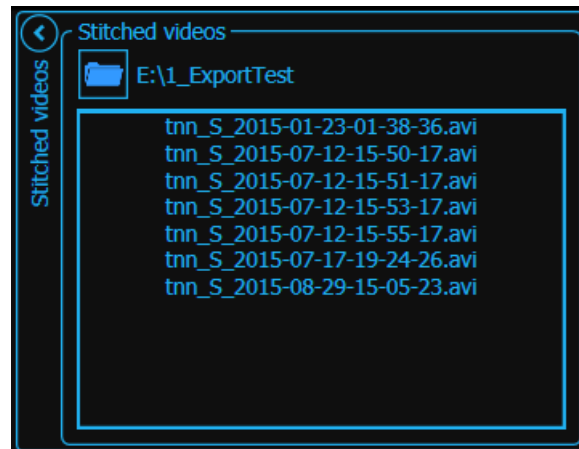
2.2 In Stitcher mode:

In Stitcher-mode always first press Reset button to activate the existing default correction, overlapping and calibration parameters. Then set for your camera individual optimal combination of height adjustment and overlapping .

Now you can also select most interesting scene and adjust optimal contrast.

You can export current scene as a png image or export into specified directory with or without sound current dual-video into single-file video.

In Player mode, in the window “Stitched videos” you can select directory where stitched videos are. After selecting directory, stitched videos are listed and can be selected and played.



19 VideoStitcher: Optimisation of calibration parameters

In Stitcher-mode you can improve existing calibration parameters by yourself:

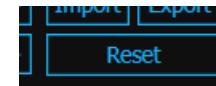
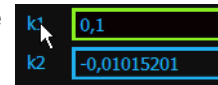
- 1) Export the existing standard parameters as ZIP file by pressing "Export", so you will create your backup of standard parameters.
- 2) Set the input video scaling (in %) to 100%.
- 3) Open a video, which shows some regular rectangular structure (grid, ceramic plates, house storefront with vert./hor. lines, etc.)
- 4) Under "Undistortion method" select "None"
- 5) Adjust both videos to fit vertically by using "Vertical offset"
- 6) Select left or right camera and optimize the parameters (FCX, CCX, FCY, etc.).

By clicking on a parameter name (eg. K1), parameter value field frame

becomes green. Then you can adjust the changing step

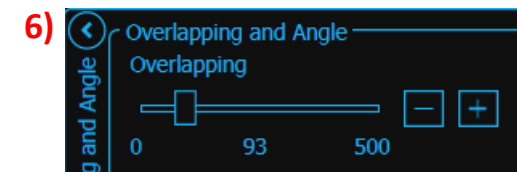
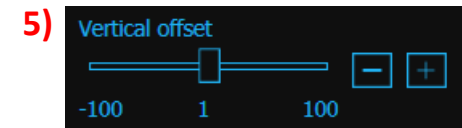
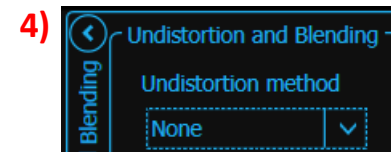
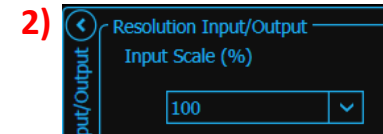
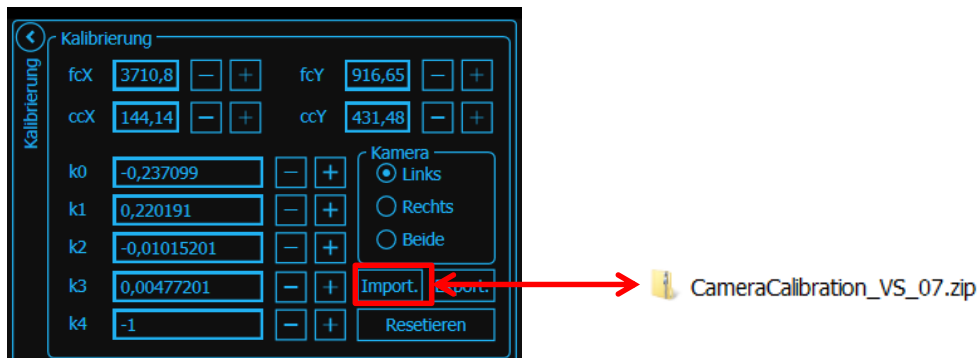
Use proper value for Overlapping.

- 7) Once you have your optimal parameters found for 100%, right-click
On Reset button set those parameters as new standard parameters
and to propagate those new parameters also to 75, 50 and 25% scalings.



ZIP file with the current standard parameters can be downloaded from our website www.hyperviewcam.com

- 9) If the new parameters are after all not better, you can easily import old parameters as ZIP file with button "Import". Just press "Import"-button, select directory and relevant ZIP file.



- 10) If you think your calibrations parameters are better than standard parameters you received with the stitcher, then please send us zip file with exported parameters and we will publish it on our web page allowing other users to download those parameters.

20 Specifications

Model name	HyperviewCam HC-200	
Colour / Dimension / Weight	Schwarz / 107x59x29mm / 88g	
Memory	microSD	up to 32 GB
Recording mode	normal (with/without permanent recording)	1280x720p x2, 30 fps
	event	
	manual	
	parking	
Recording angle	left camera: 120°, right camera: 120°, together: ~200°	
Video	1280x720 (L/R each)	HD 1280x720p 30fps
Sound	Built-in microphone	mono
	Built-in soundspeaker	1
Acceleration sensor (g-sensor) driving-mode	level I: 3.2G, level II: 2.8G, level III: 2.4G (standard), level IV: 2.0G, level V: 1.6G	
Acceleration sensor (g-sensor) parking-mode	level I: 1.6G, level II: 1.4G, level III: 1.2G, level IV: 1.0G, level V: 0.8G	
Power supply	12V DC (11,1V till 13,8V)	
Power consumption	max. 2W	
Operating temperature /Storage temperature	Operation: -10°C~70°C / Storage: -20°C~85°C	
Live Video Output	Through TV-out socket with the supplied RCA cable (to setup video width with the command "tvout")	

www.hyperviewcam.com