

Technaxx® * User Manual

Wireless Rear Camera System TX-170

Suitable for most of cars (& vans, SUVs, minibuses, caravans, etc.)
as assistance for reverse parking.

This system should be an aid and should NOT replace the need to drive
carefully.

Do not point the high pressure cleaner directly to the plate holder
camera, or drive through a car wash - the device can be damaged.

Under no circumstances will the manufacturer or supplier accept any
responsibility or can held liable for any direct or indirect, incidental or
consequential damage, or for injuries resulting from installing or use of
this system.

The manufacturer Technaxx Deutschland GmbH & Co.KG hereby declares
that this device, to which this user manual belongs, complies with the
essential requirements of the standards referred to the Directive **RED
2014/53/EU**. The Declaration of Conformity you find here:
www.technaxx.de/ (in bar at the bottom "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

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.

Warranty 2 years

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



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Features

- Inconspicuous reversing camera in license plate holder
- Suitable for most vehicles as assistance for reverse parking
- Wireless video transmission up to 15m
- IR LED for night vision ~2m
- Adjustable camera alignments & 135° viewing angle
- Power supply of the camera by connection to the reverse light
- Power supply of the monitor via the cigarette lighter socket
- IP67 camera protection class (dustproof & protection against temporary immersion)
- 4.3" (10.9cm) TFT LCD monitor with 480x272 pixel
- Distance display on the monitor
- License plate holder suitable for single-line registration (52x11cm)
- More safety in reverse driving

Technical specifications

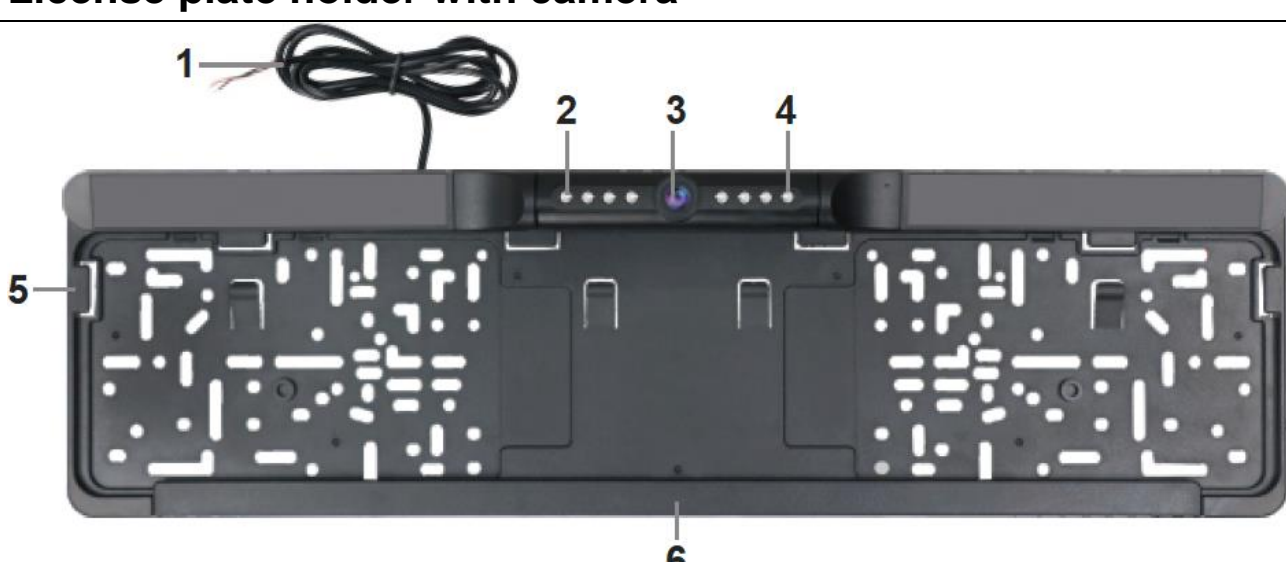
License plate holder with camera and wireless module	
Image sensor	1MP CMOS
Camera resolution / fps	640x480 pixel / 30
Viewing angle	135° (V90° / D165°)
Min. illumination	0.5Lux / automatic white balance
IR night vision distance	~2m
Power supply	DC12-24V
Max. current	<140mA
Power wire length	Ca. 2.6m
Transmission frequency	2.400-2485.5MHz
Transmission distance	~15m open space (no interferences)
Max. radiated output power	200mW
Protection class	IP67
Operating temperature	-10°C up to +60°C
Weight / Dimensions	560g / (L) 52.9 x (W) 3.5 x (H) 15.0cm
Monitor	
Display / Resolution	LCD Color 10.9cm (4.3") / 480x272 pixel
Transmission frequency	2400-2485.5MHz
Input voltage	DC9V/1A / DC5V/2.1A
Max. current	<150mA
Power adapter cable length	Ca. 3.5m
Transmission distance	~15m open space (no interferences)
Operating temperature	-10°C up to +50°C
Weight / Dimensions	107g / (L) 11.7 x (W) 3.5 x (H) 8.8cm
Packing Contents	Wireless Rear Camera System TX-170: 1x License plate holder with camera and wireless module, 1x Monitor, 1x Suction cup holder, 1x stand with adhesive, 1x monitor power adapter for cigarette lighter socket, Mounting material, User Manual

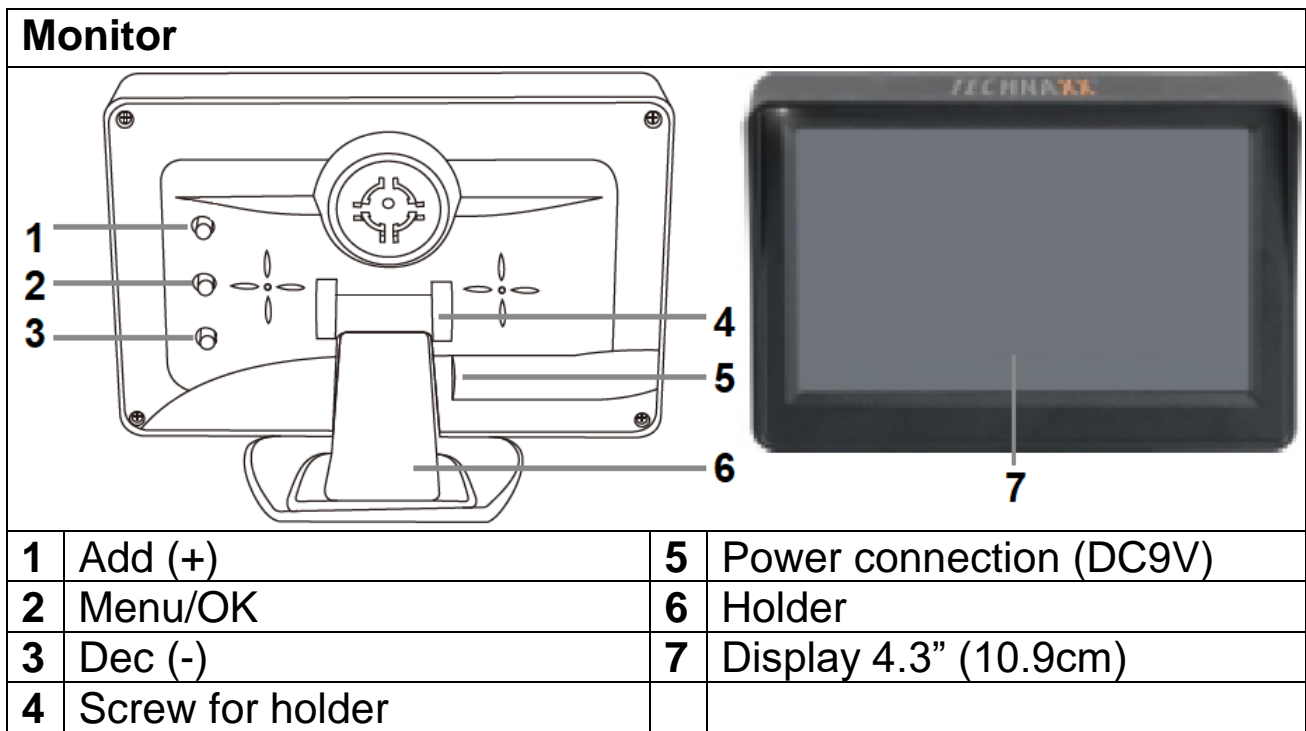
Safety regulations

The reversing system is an aid and does not relieve the driver of his duty of care in road traffic according to STVO. Read these instructions carefully before first use.

Product overview

The rear view camera sends a video signal from the camera 2.4GHz frequency range (specified for such video transmissions) to the monitor. In case another Bluetooth handsfree device is installed in your vehicle, it works in the same frequency range as the camera. If that handsfree device is activated, it may cause disturbances. Therefore we recommend to deactivate that other Bluetooth handsfree device while using the reversing system.

License plate holder with camera			
			
1	Power wire Red = positive (+) Black = negative (-)	4	Infrared-LED
2	Photoconductive sensor	5	Small bracket
3	Camera	6	Cover strip

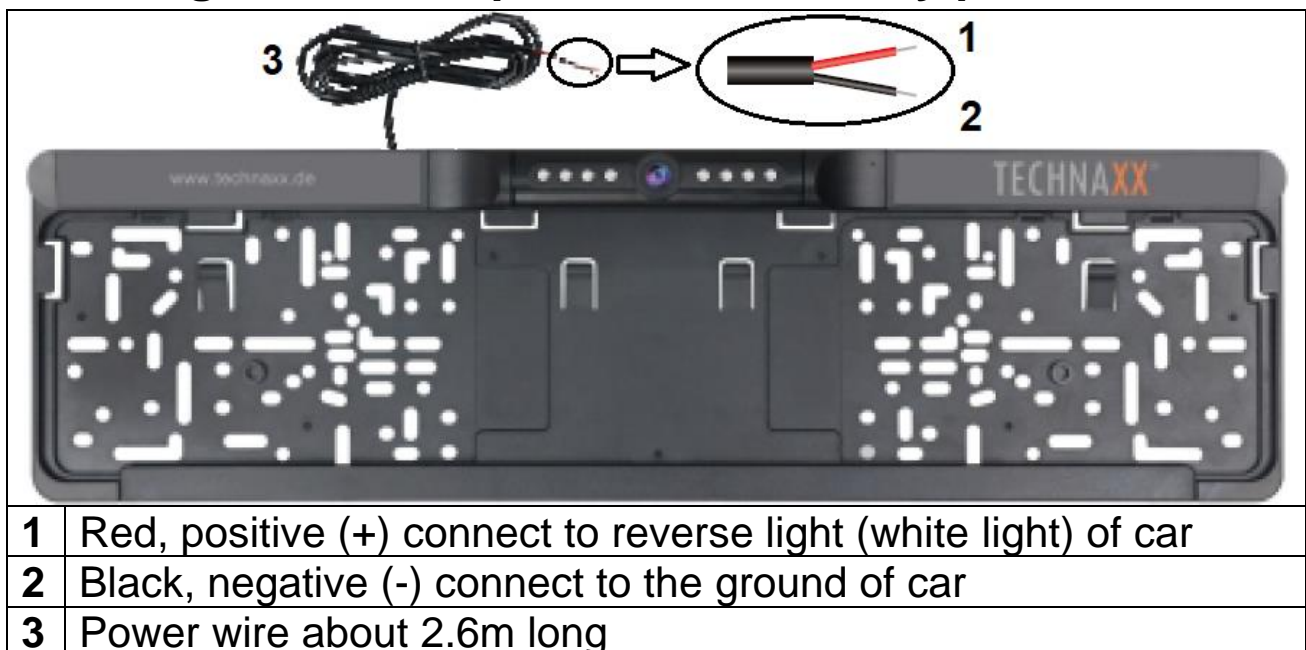


Commissioning

Check the functionality of the components before installation (a installed product is excluded from the return). Preparing and installing the license plate holder.

NOTE: You may need a voltmeter to measure the polarity of the reversing light.

Installing the license plate holder and lay power wire



CAUTION! If you have no experience in installing electrical devices on vehicles, you are not allowed to carry out the following work yourself. Have the assembly and connection carried out by qualified specialists.

1. Remove your rear license plate including any holder that may be present. Instead of the built-in holder, mount the license plate holder with camera here - if possible using the old mounting holes. First hold it up to the vehicle and prepare for installation:

2. Expose the interior behind the license plate so that you can see the license plate carrier plate from the inside. In the area of the license plate and license plate light, look for an existing cable duct in the rear of the vehicle or in the tailgate. If there is no usable cable passage here, you will have to drill your own cable passage. Mark a drilling point that is hidden under the camera module or license plate.

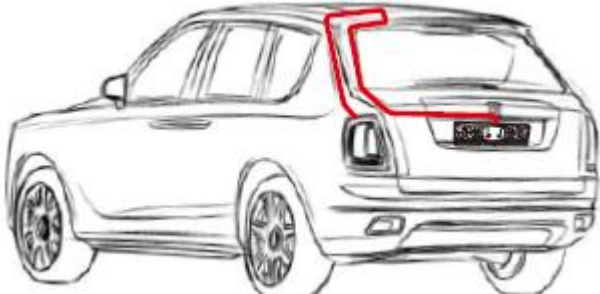
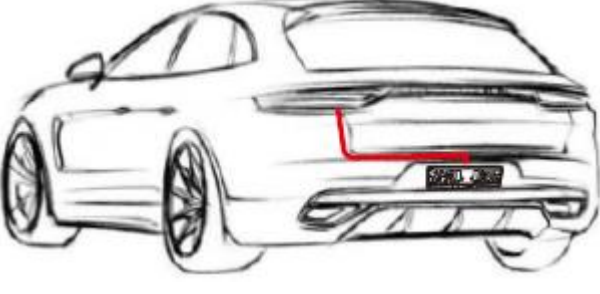
Note: You may need to drill a 4mm hole for the power wire.

3. After drilling, seal the sheet metal edge with a suitable rust preventive agent.

4. Push the power wire through the hole into the vehicle. Carefully seal the cable entry with a suitable body sealing compound so that no water can get into the vehicle. Screw the license plate holder into place, taking care not to damage the cable seal. If necessary, re-seal from the inside.

5. Try to lay the power wire like it is seen in the below images. Make sure that the cable routing is clean so that opening and closing cannot break the cable.

Note: The pictures are just advice. Depending on your car it can be a different way.

	
<p>License plate holder installed to the trunk lid.</p>	<p>License plate holder installed to the bumper.</p>

6. Remove the cover of the reverse light.

7. The thin two-core cable is used for power supply and as a switching signal when reverse gear is engaged. Connect the two wires with the two contacts of your reversing light. To do this, you need to know their polarity (measure or check the circuit diagram): The red cable must be mounted on the positive pole of the reversing light and the black cable on an earth contact.

8. Install the tail light cover again.

Important: This installation only shows the rear view when the reverse gear is chosen. Then the rear view camera gets power. The monitor in the front will automatically light up and show the rear view.

Note: If your DC12-24V connection of the rear view camera has a permanent plus the signal will be transmitted to the monitor permanently. This will cause the monitor to be on (showing the rear view) all the time. The monitor will not turn off by itself. You need to unplug it from the cigarette lighter socket before leaving the car. *Or your car battery can get drained!*

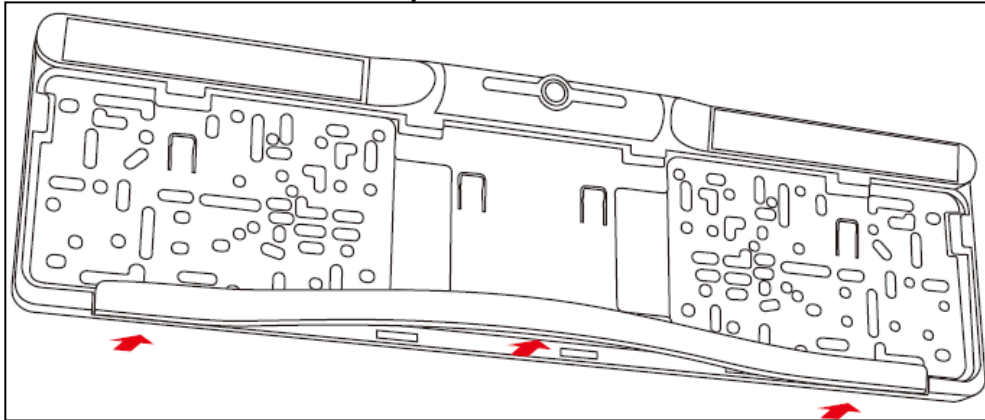
Because of this we do not recommend a permanent connection. If you want a permanent connection make sure it linked with the ignition of the car!

Note: In a parked car the temperature can easily rise up very high in direct sunlight. To avoid damages on the monitor, store it in e.g. the glove compartment.

Insert the license plate in the holder

1. Remove the cover strip from the license plate holder

Note: First remove the middle part of the cover strip, then remove the two sides of the cover strip



2. Insert license plate into the holder, frame the license plate through the small bezels basically.



3. Insert the top cover strip's clips into the relative holes of the license plate holder then press tight.

Note: First press both ends of the cover plate, then press in the middle




Installing the monitor

1. Monitor pedestal could be attached to stand or windshield as your requirements. There are 2 kinds of mounting brackets accordingly.

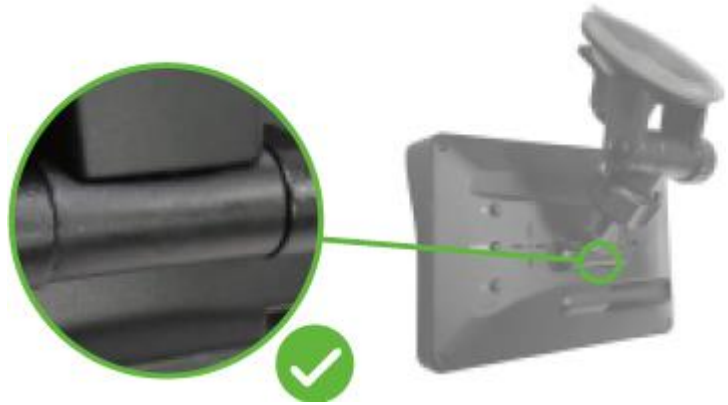
		
Stand mount	Suction cup mount	

2. Mounting the brackets

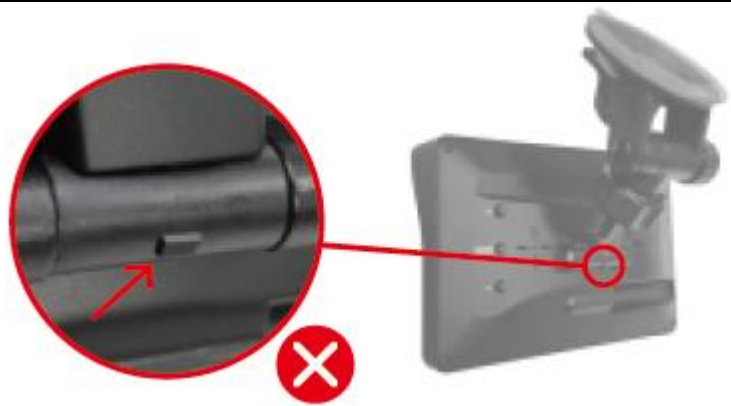
<p>1) If using the factory default stand mount, stick on the dash board: Choose and clean a right place on the dash board, tear the paper of the monitor stand sticky tape, put and press tight the stand mount on the dash board.</p>	
<p>2) If using the suction cup mount: Use suction cup mount to replace the default stand via screwdriver.</p>	

Note:

Look at the back of the monitor. Check if the roller cam is facing inward and the roller cam is in close contact with the groove of the bottom case of the monitor. The installation direction is correct.



As shown in the figure, the monitor is viewed from the back side. If the roller cam faces outward, the installation direction is wrong.



Choose a right place on the windshield and mount the suction cup mount on the windshield. With the suction lever in the released position, press the suction cup against the windshield. Press the suction lever toward the suction cup to lock the mount. To adjust the angle of monitor, loosen the collar on the ball joint, retighten in the desired position.



3. Connect the monitor and cigarette lighter socket with power cord.
4. The monitor is now powered on and will automatically awake when it will get a signal from the camera (therefore switch into reverse gear)

Camera angle adjustment

Put the car in reverse gear to automatically trigger the display of the image behind the car. Then adjust the camera angle to the most suitable position.

Adjustable angle for flexibility: 114°

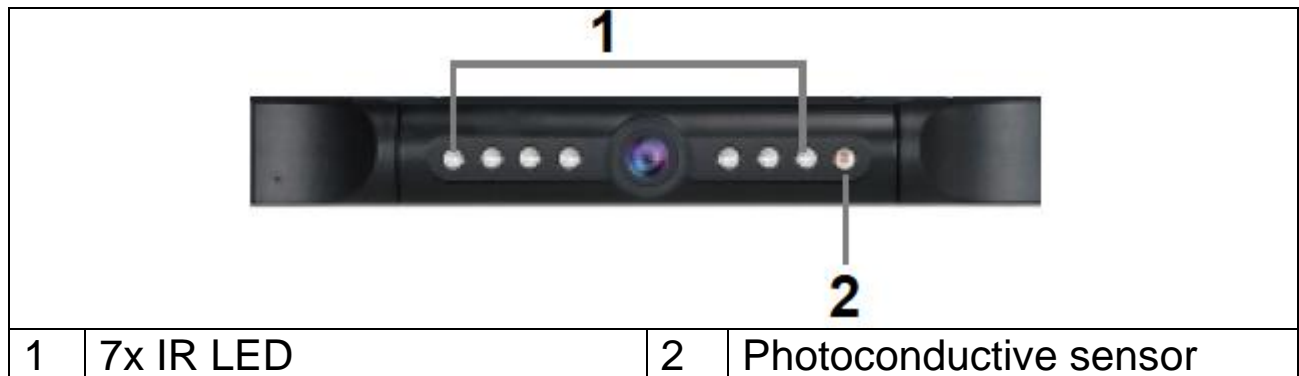


When rotating the camera hold the license plate holder with one hand and rotate up or down the outer frame of the camera with the other hand to set the best angle.

Set the camera at an angle where you have a good view to the rear, depending on the height of the license plate holder from the ground. The displayed lines on the monitor give you an indication of the distance. Definitely control the distance with a folding ruler.

IR LED and photoconductive sensor

The photoconductive sensor next to the camera can detect light changes in real time, It will automatically light up when reversing at night or in low light conditions, so that the reversing image is clearer.



1	7x IR LED	2	Photoconductive sensor
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Monitor button & setting

1 The Up button (Add/+)

- Short press to change/add parameter value at the menu setting interface.

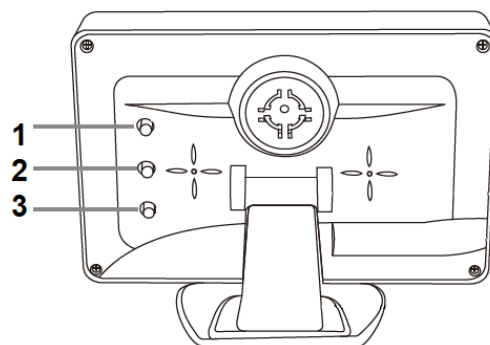
2 The Middle button (Menu/OK)

- Short press to enter monitor menu setting.

- Long press (press and hold for 3 seconds) to confirm the chosen item in the menu setting interface.

3 The Down button (Dec/-)

- Short press to change/decrease parameter value at the menu setting interface.



Monitor main menu

While the monitor is showing the rear image, short press the middle button (Menu/OK) to enter the main menu interface, and 5 options are available.

	Pairing	Default setting, no need to operate again.
	Image Parameters	To adjust Brightness, Contrast, Color.
	Image Mirror	Set Upwards/Downwards or Original/Mirror Image.
	Parking Guideline, Position Adjustment	The parking guideline can be adjusted up and down as needed.
	Software Information	Select "Software Info", press (Add/+) or (Dec/-) key to display software version information.

Image Parameter

While the monitor is showing the rear image, short press the middle button (Menu/OK) to enter the main menu interface. From the 5 options select "Image Parameter", long press the (Menu/OK) button again, 3 Images (Brightness/ Contrast/ Colour) setting interface are shown below:




	Brightness Select Brightness icon, press (Add/+) or (Dec/-) button to adjust the brightness.
	Contrast Select Contrast icon, press (Add/+) or (Dec/-) button to adjust the contrast.
	Colour Select Colour icon, press (Add/+) or (Dec/-) button to adjust the colour.

Image mirror

While the monitor is showing the rear image, short press the middle button (Menu/OK) to enter the main menu interface. From the 5 options select the "Image mirror" icon and long press the middle button (Menu/OK) to enter the mirror setting interface. Short press the (Add/+) or the (Dec/-) button to set rightwards or leftwards image. Select the "Image Mirror" icon and long press (Menu/OK), to set upwards or downwards image. After setting, short press it twice again continuously to exit the setting. The image setting will be saved for future.



Parking guidelines

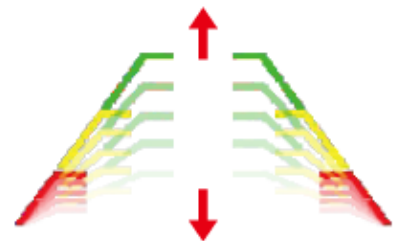
Display or no display:

While the monitor is showing the rear image short press Down button (Dec/-) to switch the Parking guide Lines display modes (Display or No display)!

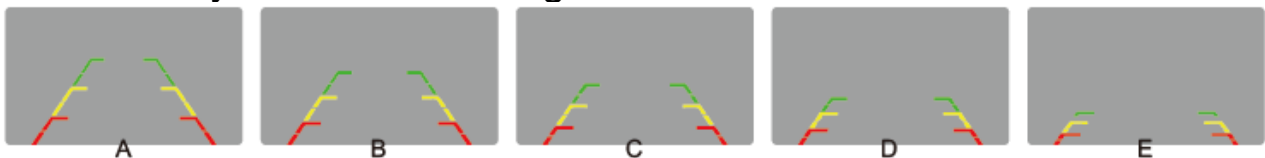


Position Adjustment:

The parking guideline position can be adjusted up or down, to mark the image area more realistic. There are 5 levels for choice.



While the monitor is showing the rear image, short press the middle button (Menu/OK) to enter the main menu interface. From the 5 options select the “Parking Guide Position Adjustment” icon, then long press the middle button (Menu/OK) to enter the setting interface, short press the (Add/+) or (Dec/-) button to choose the most suitable one from 5 levels, then short press (Menu/OK) twice continuously to exit the setting.



General information

- Never place the device on an unstable surface. Dropping may damage the device.
- The device is not in the hands of children. It is not a toy.
- Also observe the safety instructions and the operating instructions of the other devices to which the device is connected.
- In commercial facilities, the accident prevention regulations of the Association of Professional Associations for Electrical Installations and Equipment must be observed.
- In schools, training centers, hobby or self-help workshops, the operation of electronic products is to be

monitored responsibly by trained personnel. ● The seller assumes no responsibility for damage that occurs during the use of the device, as well as for complaints by third parties.

Environmental conditions

● Avoid heavy mechanical stress on the device. Protect it from vibration, hard knocks, do not drop it or shake it. ● Do not expose the device to high temperatures (over 60°C) and strong temperature fluctuations. Protect it from direct solar radiation and proximity to radiators. ● IP67 camera protection class (dustproof & protection against temporary immersion). The monitor may only be operated indoors. ● It cannot be completely ruled out that some paints, plastics or other care products attack the material of the housing or accessories.

Disorders: If an object or liquid gets into the device, have the device checked by an authorized technician before continuing to use it. We recommend that you contact our service center.

Packing material: Keep children away from packaging material. There is danger of suffocation.

Cleaning and care: ● Always store the device in a clean, dry place when not in use. Use a dry, soft cloth to clean the exterior surfaces.

● Do not point the high pressure cleaner directly to the license plate holder camera or drive through a car wash - the device can be damaged.

Interference by wireless transmission: The device operates at a frequency of 2400-2485.5MHz. This frequency can also be used by other devices that transmit video wireless. It can thus come in individual cases to disturbances.

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