

Dear Customer!

We thank you for purchasing Neoline G-Tech X27. Please read this manual carefully and thoroughly to use the device properly and extend its life. Keep the manual to refer to it in case it becomes necessary in future.

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[Terms of use]

- Read the terms of the warranty service.
- Do not insert or remove a memory card while the DVR is on. This may cause damaging the device and recorded video files.
- Use only high-quality micro SD cards that are not lower than Class 10 with UHS-I protocol support to avoid recording and image delays.
- It is recommended to use memory cards from 8GB to 32GB.
- The device should only be used only the accessories included in the delivery. In case third-party accessories are used, Neoline is not responsible for any possible damage to the device.
- Do not expose the device to fire, moisture or chemicals (petrol, solvents, reagents, etc.).
- Do not disassemble or modify the device.
- Neoline is not responsible for any data loss and / or damage (direct or indirect) incurred to the user or third party by misusing the device or software, incorrect installation, use of accessories not included in the package.
- Attention! In some cars, power is supplied to the 12 / 24V socket even when the ignition is switched off. To avoid discharging the battery, we recommend you to disconnect the device from the vehicle's electric net.
- Format the micro SD card at least once in two months to avoid damaging its file system.
- Observe the temperature conditions for storage and operation (see specifications). Do not expose the device to sunlight for long time.
- This device is designed for use with a clear windshield or a light heat-shielding film for glass. The quality of video recording will decrease if the

device is installed on tinted windshield or glass with a dark heat-shielding film.

- DO NOT install the DVR on spot where the device can interfere the view and reduce the safety of driving. Neoline, or authorized partners of the company, are NOT responsible for any damage or data loss due to inappropriate installation.
- Do not manipulate the device while driving for safety reasons and in accordance with local regulations.
- Before using the device, set the time zone, time and date.
- Heating of the mirror frame and the rear camera while operating is normal.
- Be careful when operating – do not drop or press the DVR.
- For correct operation of the GPS module in a car with a thermal windshield or heated glass, the correct installation of the device is necessary. Due to the fact that these windshields contain metal sputtering in their design, the correct operation of the GPS module may be impaired. Determine the radio transparency spot on the windshield of your car, using, for example, polarized glasses.

ATTENTION! Updating of GPS database of police radars is made through the GPS-module. Install the module to a spot where it will be easily accessible.

- Satellite search time may increase depending on weather conditions, time of day, terrain and design features of the car.

The manufacturer reserves the right to change the configuration, hardware and software of the device without prior notice.

It is assumed that you agree with the provisions given above before starting to use the system.

This user manual is valid at the time of printing. The latest information can be found on the www.neoline.ru website in the corresponding product tab in the Download section.

[Specifications]

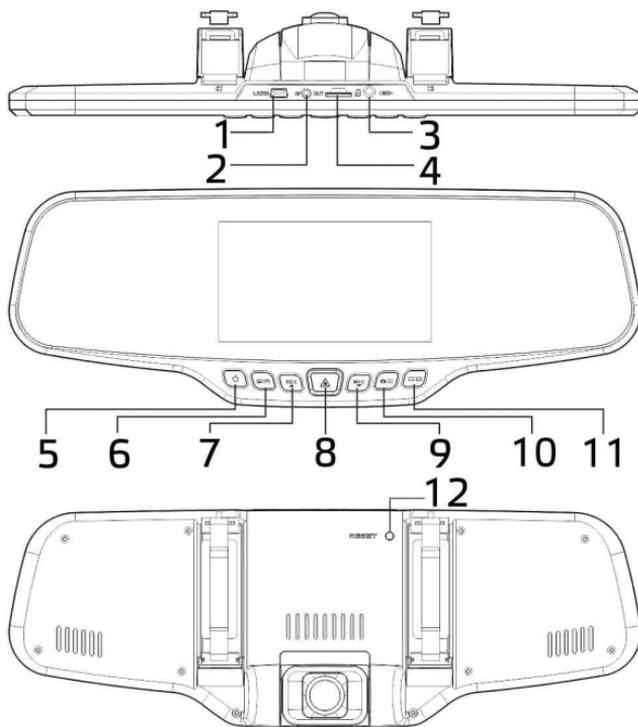
- Resolution:
 - front camera Full HD 1920 * 1080 (30 fps)
 - rear camera HD 1280 * 720 (30 fps)
- Viewing angle:
 - front camera 150 °
 - rear camera 100 °
- Screen size: 4.3 inches
- External GPS module
- Built-in battery: 600 mA
- Video recording format: MOV (H.264)
- Built-in microphone / speaker
- G-sensor
- Parking mode
- Cyclic recording: 1/3 min
- Continuous recording
- Auto power off
- Date / time fixed on the screen
- Car state registration number fixed on the screen
- Geo location fixed on the screen
- Micro SD 8GB - 32GB (Class 10)
- Storage temperature: from -20° to + 70
- Operating temperature: from -10° to + 40

- Input voltage: DC 5V, 1.5 A
- Input voltage of recorder: DC 12-24 V
- Dimensions: 284 x 99 x 16 mm
- Weight: 328 g

[Package Contents]

- Neoline G-Tech X27 DVR
- Rear camera
- GPS-module
- USB cable
- Car charging device
- User's Manual
- Warranty certificate
- Installation kit

[Device and buttons description]



- | | |
|--|--|
| 1. Mini USB connector | 8. OK / Record lock button |
| 2. Rear camera connector GPS connector | 9. Down / Microphone button (DOWN / MIC) |
| 3. GPS connector | 10. Mode button (MODE) |
| 4. Memory card slot | 11. Switch button (SWITCH) |
| 5. Power On / Off Button (POWER) | 12. Reset button (RESET) |
| 6. Menu button (MENU) | |
| 7. Up / Record button (UP / REC) | |

[Buttons]

1. POWER

Short press turns on the device. Long press – turns off the device.
Short press in the operation mode turns the screen backlight on / off.

2. MENU

Pause the video recording by pressing the UP / REC button. In Standby mode, a short press opens the settings menu, a second press switches the settings section. In Play mode, opens a file deleting window.

3. UP / REC

Short press in Video mode starts / stops video recording. In the Settings menu the button is used to move through the menu items (up). In Playback mode, pressing the button allows you to select a video or photo for playing / viewing. While a video is being played, pressing the button starts rewinding.

4. OK

In the Settings menu – confirm the selection of an item or setting. In Record mode – locking the current video file from deleting.

5. DOWN/MIC

Short press in Video mode turns the microphone on / off. In the Settings menu the button is used to move through the menu items (down). In Play mode pressing the button allows you to select a video or photo for playing / viewing. While a video is being played, pressing the button starts to fast forward.

6. MODE

Pause the video recording before pressing this button. In Standby mode a short press switches between the operating modes: Video / Photo / Play.

7. SWITCH

Short press switches between the main and rear camera.

8. RESET

Press to force the device to restart, in case the DVR does not respond to pressing the buttons.

9. Memory card slot

The slot is designed to install a micro SD card in the DVR. Turn off the device before inserting the memory card.



CAUTION: Attempting to insert a memory card with the wrong side may damage the device and the memory card itself. Make sure that the memory card is in the correct position.

Warning: do not use excessive force when inserting a memory card to avoid damaging the device. Insert the micro SD card into the slot until it locks (until it clicks). Use a needle to push the card if necessary. To remove the memory card, press it until it clicks and remove the card from the slot. Use a needle if necessary.

10. USB Connector

The USB connector is designed to connect the power and charge the battery. Connect the dashcam to the vehicle's electric net through the supplied charger.

11. AV Input

The AV connector is designed to connect the rear-view camera.

[Installation]

Installation on the standard rear-view mirror

The DVR is equipped with sliding clamps for installation on the standard rear-view mirror.

ATTENTION! Make sure that the length of the sliding clamps is wider than the width of the standard rear-view mirror.



Fix the DVR to the rear-view mirror using the supplied ties.



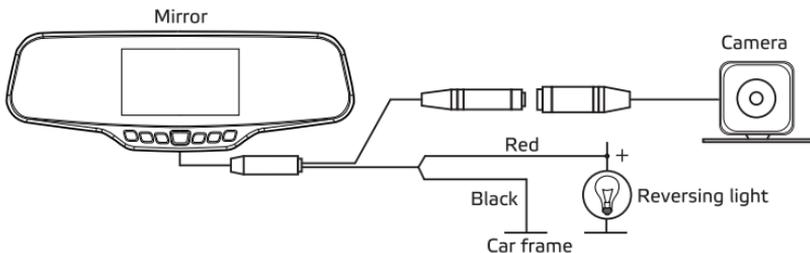
Lens adjusting

Adjust the view angle by tuning the lens to the intended side (left to right or up to down). Set the lens so that the camera captures the image in the proportion of «30% sky / 70% road» to achieve the best shooting result

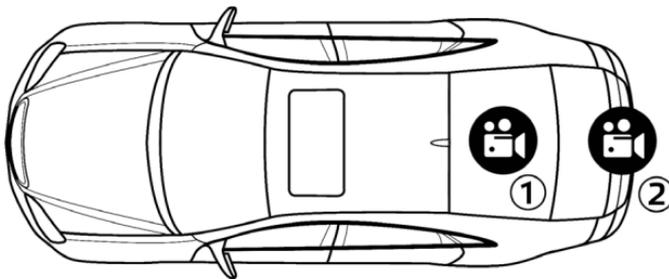


Installing and using the rear-view camera

Install the rear-view camera according to Fig. 1



Fix the camera on the rear bumper with self-tapping screws or inside the car on 3M scotch tape (included) according to Fig. 2



Parking camera installation:

1. Inside the car on 3M scotch tape
2. On the rear bumper of the car
3. Connect the video cable to the AV input of the DVR

4. Connect the power cable to the reversing light wiring so that the video from the rear-view camera is displayed in full screen mode when you switch the gearbox to the reverse mode. If you do not connect the power to the reverse light wiring, the rear-view camera will record the video, but will not automatically switch to full screen mode.

GPS module installation

Install the module to a spot where it will be easily accessible as updating the GPS database of police radars will be made through the GPS module.

Some cars have thermal windshields. Determine the radio transparency spot on the windshield, using polarized glasses.

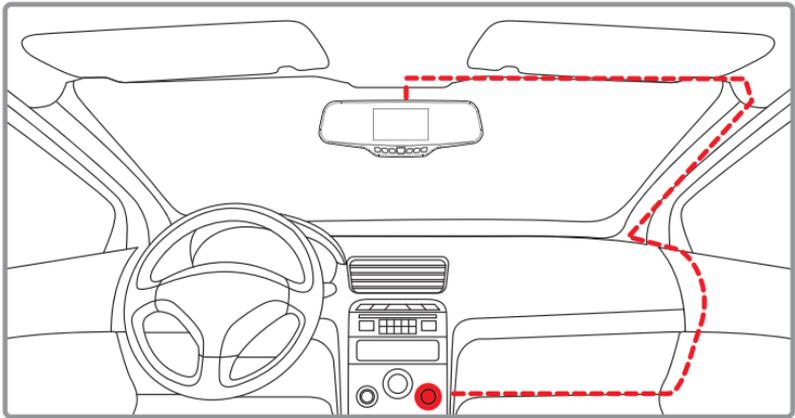


Power connection

Use only the supplied power adapter to power the device and charge the battery.

Connect one end of the power adapter to the mini USB connector on the device.

Connect the other end of the adapter to the car cigarette lighter socket. After starting the car engine, the device will automatically turn on.



[Operation]

Turning the device on and off

Press the POWER button to turn the DVR on. After the Neoline logo appears on the screen, the device turns on.

Press and hold the POWER button to turn the DVR off. The video recording will stop and the last video file will be saved.

Note: Fully charge the built-in rechargeable battery before the first use through the supplied car adapter from the vehicle's electric net. If the battery level is too low, the DVR may not turn on.

Auto power on / off: When the power is being supplied to the DVR (turning on the car's ignition), the device will automatically turn on and start video recording. When the power is turned off, the DVR will automatically stop recording and turn off.

Note: In case the voltage on the cigarette lighter socket is supplied after the ignition is turned off in your car, please remove the plug from the cigarette lighter outlet to avoid discharging the battery.

Cyclic recording

Insert the micro SD card into the memory card slot and the Cyclic recording mode will be automatically turned on.

The duration of the video can be 1/3 minutes. It is recommended to set the cycle for 3 minutes in the Settings.

When there is no space left on the memory card to record new videos, the device automatically replaces old video files with the new ones, except those that are locked from deleting.

Videos recorded in Cyclic recording mode are stored in the Normal folder.

Emergency recording

It is designed to protect the current video file from being recorded over and deleted. In order to protect the current video file, press the OK button during video recording, and the recorded video file will be marked with a special label that will prevent the device from deleting and recording over this file. The corresponding icon will be displayed on the screen.



Emergency recording is automatically activated when the G-sensor triggers (sudden acceleration, deceleration) or collision. The emergency recording is automatically locked to prevent deleting during cyclic recording. Such files are stored in the Event folder.

Firmware Upgrade

- Download the file with the firmware from the official website www.neoline.com, extract the file from the archive.
- Format the memory card and transfer the unzipped file to the micro SD card.
- Insert a memory card with the downloaded file into the DVR slot.
- Connect the device to a power source.

- The status of the firmware update will be displayed on the screen.
- After the process is completed, the device will automatically reboot.
- Check if the correct firmware version is displayed in the Settings menu.
- Format the memory card using the DVR menu.

Attention! Do not turn the DVR power off while updating the firmware.

Parking mode

When this mode is activated, recording will automatically start every time the device detects a shake / impact, even if the device is turned off. You can enable / disable this function via the Settings menu in the Parking mode section. Files recorded in the parking mode are stored in the Parking folder.

Play / delete files

Playing files

- Press MODE button in a standby mode
- Choose a video for playing from Event or Normal folder using the Up / Down and Confirm buttons.
- Use the Up / Down buttons to select the file you want to view and press the Confirm button to start playing.

Deleting files

Enter the Play menu using the MODE button.

Use the Up / Down buttons to select the file you need.

Press the MENU button to open a file deleting menu.

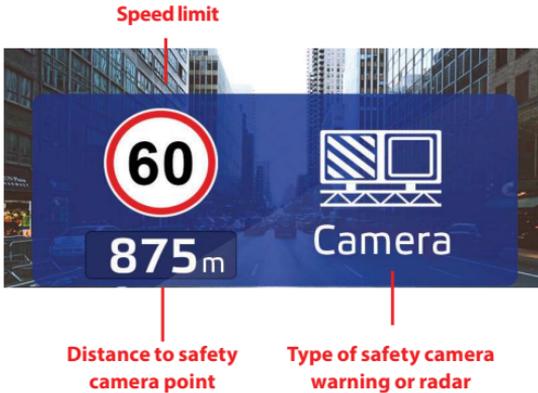
Choose the necessary function using Up / Down buttons.

Menu line	Description
Delete one	Delete current file
Delete all	Delete all files

- Press the Confirm button to confirm deleting.

Note. Deleted files cannot be recovered. Make backup copies of the necessary files before deleting.

Notification of detected police radars and cameras from the GPS base



Intelligent processing of average speed control cameras

The average speed control system consists of 2 cameras installed on a road section within 500 – 10 000 m from each other. When driving through the 1st camera, the travel time is fixed. When driving through the 2nd camera, the time of travel is also fixed and the average speed of the car is calculated. If the average speed of the car in the section between two cameras is higher than the speed limit, the driver will receive a fine issued automatically.

When detecting the average speed control cameras, Neoline G-Tech X27 processes this system as follows:

- The distance to the 1st camera is displayed on the screen and a Voice alert appears
- After passing the 1st camera, the current average speed will be displayed
- If the current average speed exceeds the speed limit, the DVR will sound a Voice alert
- When passing the 2nd camera, there will be a notification of video control ending
- When you leave the road between two cameras Neoline G-Tech X27 will reset the alert according to its algorithm within 10 minutes
- When the car stops on a road section between two cameras, the average speed will continue to be displayed on the display

Types of police radars and traffic control cameras

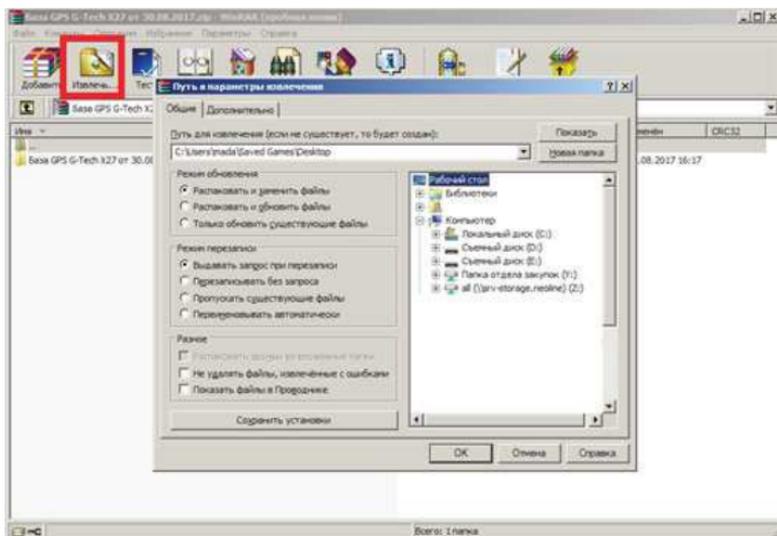


Radar Type	Image	Radar Type	Image
Strelka		Backside radar	
Strelka video unit		Roadside control	
Speed control		Public transport lane control	
Traffic control post		Crossroads	
Radar imitation		Pedestrian crossing	
Average speed video control			

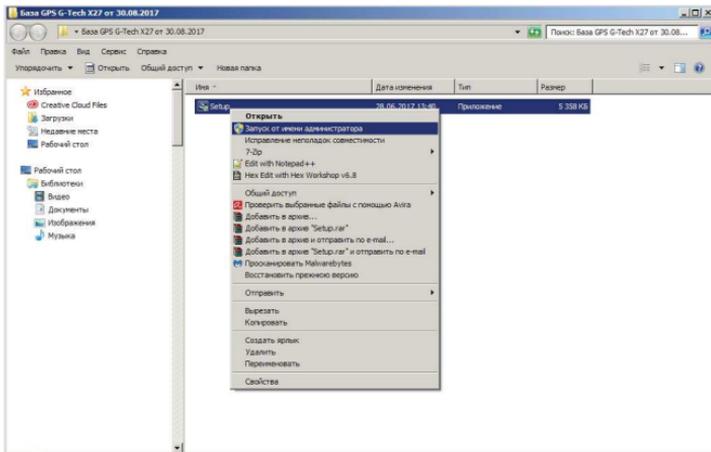
Note: after police radar notification, the speed limit on the current section of the road is announced. For example: «Speed control , 60 kilometers per hour»

Police radars GPS database updating

1. Disconnect the GPS unit from the device
2. Download the active version of the GPS database from the following website: <http://neoline.com/products/videoregistrators/Neoline+G-Tech+X27>. Choose the «download» section on the G-Tech X27 page. The file name will look like this: Radars database, 45 countries, from xx. xx.2018.
3. Extract the *.exe file from the downloaded «GPS G-Tech X27 Database from xx.xx.20xx.exe» folder to the desktop, by clicking «extract» and specifying the path to your PC desktop.



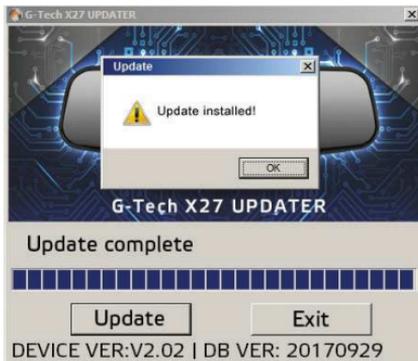
4. Start the update program. Open the folder on the desktop «GPS-base G-Tech X27 from xx.xx.2017», right-click on the file «*.exe» and run it as administrator.



5. Connect the GPS module through the micro USB cable from the kit to the PC. If the connection is correct, the software will display «Connected» status



6. Click the Update button and wait for the update to be finished.
7. When the update is complete, click the «Exit» button. The GPS database is updated. The version of the current database will be displayed on the bottom line of the DB VER software:



[Menu]

The DVR menu consists of 5 sub-menus. Use the MENU button to navigate.

Video settings

- Resolution: 1080P 1920 * 1080 / 720P 1280 * 720
- Cyclic recording: Off / 1 minute / 3 minutes
- Auto shutdown: Off / 5 seconds / 10 seconds / 30 seconds
- Exposition: -2 to +2

Photo settings

- Resolution: 3M / 2M
- Exposition: -2 to +2
- White balance: Auto / Sunny / Cloudy / Fluorescent (3 gradations) / Incandescent lamp

Files

- Delete: Delete file / Delete all
- Lock: Lock the file / Lock all /
- Unlock file / Unlock All

Main Settings

- Button sound: On/ Off
- Date / Time: use the Up / Down / Confirm buttons to set the date and time.
- Date format: Year-Month-Date / Month-Date-Year / Date-Month-Year
- Data fixed on the screen: Date + NEOLINE logo / Date / NEOLINE Logo / Off

- Language: Russian / English
- State number fixed on the screen: enter state number of the car, using numbers and letters of the Latin alphabet.
- Network power frequency: 50 Hz / 60 Hz
- Auto display off: Off / 5 sec / 10 sec / 30 sec / 1 minute / 3 minutes
- G-sensor sensitivity: Off / High / Medium / Low
- Parking mode (enabling the mode and setting the sensitivity of the G-sensor during parking): Off / High / Medium / Low
- GPS status: GPS connection status
- Time zone: set the time zone of your region
- Reset settings: use to return to the factory settings.
- Formatting: Use to format the memory card.

Attention! After formatting the memory card, the files cannot be restored

- Software version: software version information

GPS Settings

- Alerts volume: Off / 1 ... 8
 - Speed limit (speed below which there will be no alerts): Off / from 10 km/h to 100 km/h in increments of 10
 - Additional excess: Off / from 5 km/h to 20 km/h in increments of 5
- An additional excess is the excess of the speed limit in the area below which the device does not alert you of speeding.

Example A:

- speed limit: 60 km/h
- additional excess: Off

In this case, the device will alert when the speed exceeds 61 km/h.

Example B:

- speed limit: 60 km/h
- additional excess: 10 km/h

In this case, the device will alert when the speed exceeds 71 km/h.

- Alert: Voice + Display / Display

[Troubleshooting]

Refer to this section in case there are any troubles with the device, considering that the device is used properly.

Taking pictures or recording video does not work

Check if there is enough free space on the micro SD card, and also whether it is locked.

Spontaneous stop during recording

Due to the large size of video files, use only high-speed micro SD cards of at least 10 class from authorized manufacturers.

When you try to play / view a photo or video file, «incorrect file» appears on the display

Unfinished file recording process due to a file system error on the micro SD card. Format the micro SD card.

Blurred picture

Check if there is any dirt or fingerprints on the lens. If there is, wipe the lens with a soft cloth before operating (it is recommended to use special tools to care for the optics, so as not to damage the surface of the lens).

An image is dark when photographing the sky or water
If there is a large contrast in the scene, this will affect the exposure.
Change the exposure setting in the menu.

The device freezes (there is no image on the display, does not
respond to button presses)
Press the RESET button to force the device to reboot.