



# **NEOLINE**

## **NEOLINE G-TECH X81** CAR DIGITAL VIDEO RECORDER



### **User Manual**

**Dear customer!**

Thank you for purchasing the Neoline G-Tech X81 car digital video recorder! Please read this manual carefully and all through to ensure proper use and longer service life of the device. Keep the user manual to consult it when necessary.

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## 1. Operating Conditions

- Please read the warranty terms carefully.
- Never insert or remove a memory card while the DVR is on. It may cause damage to the device and recorded video files.
- Use only high-quality microSD cards of at least Class 10 providing for the UHS-I communication to avoid recording failures and playback delays.
- It is recommended to use 8GB to 128GB memory cards.
- This device shall only be used with the accessories supplied. Where third-party accessories are used, Neoline bears no responsibility for any damage to the product.
- Do not expose the product to fire, moisture or chemicals (gasoline, solvent, reagents, etc.).
- Do not disassemble or modify the product.
- Neoline is not responsible for any data loss and/or direct or indirect damage caused to the user or a third party by incorrect use of the device or software, their incorrect installation, or the use of accessories not included in the package.

**CAUTION!** Inserting a brand-new SD card may sometimes bring no DVR response. In this case, just format the memory card with a PC.

- Format the microSD card at least once every two months to avoid damage to its file system.
- Observe the storage and operation temperature conditions (see specifications). Do not expose the unit to sunlight for too long.
- The device is designed to be used in cars with a transparent windshield or light-tone heat shield for glass. Where the windshield is tinted or covered with dark heat shield film, the video quality decreases.
- The 3M Adhesive Tape holder is designed for permanent installation. So, please determine the location of the video recorder in advance.
- Install the DVR in such a way as to get the maximum field of view. DO NOT place

the DVR in a place where it can block the view and compromise your safe driving. Neoline and its authorized partners ARE NOT responsible for any damage or data loss due to improper installation of the holder.

- The built-in supercapacitor helps you finish your recording correctly. Normal operation of the device requires an external power source.
- Under the local law, do not manipulate the device while driving to be sure you are driving safely.
- Set the time zone before using the device. Set the correct date and time if necessary.
- Heating of the case during operation is normal.
- Please handle the device with due care and avoid dropping/crushing the device.

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

It is assumed that you agree with the provisions above before you start using the system.

This user manual is valid at the time of printing. You can download the most up-to-date version of this manual at the official website [www.neoline.com](http://www.neoline.com).

Please see the page of a specific product.

## **2. Specifications**

- Video resolution: 1440p 30 fps
- Viewing angle: 160°
- Lens aperture: F1.8
- Display: IPS, 2.8"
- Built-in supercapacitor\*
- Magnetic mount with active charging
- Built-in microphone/speaker
- Triaxial shock accelerometer (G-sensor)
- Parking mode
- Motion sensor

- Loop recording
- Continuous recording
- Auto switch-off
- Date/time stamp
- State number stamp
- 8GB to 128GB MicroSD (Class 10)
- Storage temperature: -20° to +70°
- Operating temperature: -10° to +60°
- Power cable connector: USB, Type-C
- Input voltage: 5VDC, 1.5A
- Charging input voltage: 12-24VDC
- Dimensions: 87\*39\*39 mm
- Weight: 70g

\*The DVR is designed to operate under a wide range of temperatures. Unlike a battery, a supercapacitor is more durable and can work more efficiently both at low and high ambient temperatures.

This user manual is valid at the time of printing. The current version of the instructions can be found at [www.neoline.com](http://www.neoline.com) in the Download section

### 3. List of Equipment:

- Neoline G-Tech X81 DVR
- Windshield Magnet Mount
- USB Charger
- User Manual
- Warranty Card



## 4. DVR/Buttons Description



1. Lens

2. Speaker

3. USB Type-C connector

4. Memory card slot

5. Operation indicator

6. Display

7. USB Type-C connector

8. Magnet

9. Contact area

10. DOWN/LEFT button.

11. Menu button

12. UP/RIGHT button.

13. Confirmation button (OK)

14. ON/OFF button

## Description of the Buttons

Button	Description
<b>ON/OFF</b> (It is active only when external power is connected)	Press it in Video Recording mode to lock the file from being overwritten. Press and hold to turn the device on/off.
<b>MENU</b>	Press in Standby mode to enter the Setting List. Press it to move to the previous menu level when navigating through the settings. Press to take a photo in Video Recording mode.
<b>LEFT</b>	Press to turn on/off the audio recording in Video Recording or Standby mode (recording stopped). Press to move up or back when navigating the menu.
<b>RIGHT</b>	Press to move down or forward when navigating the menu. Press to speed up playback (x1, x2, x4, x8) when browsing the files. Press to save the current frame to the memory card in Video Recording mode.
<b>OK</b>	Press to stop/start recording in Video Recording/Standby mode. Press to select any menu item and/or to confirm an action when navigating the menu. Press to pause playback in Video Playback mode.
<b>RESET</b>	Press to reboot if no other button responds.

## Operation Description

Status	Description
Flashing blue	Recording
Continuous blue	Recording stopped
Blinking blue	Updating the firmware

## 5. Mounting the DVR

### Installation on the windshield

- Please determine the location of the video recorder in advance.
- Hold the bracket base firmly and secure it to the windshield.



**CAUTION!** Adjusting the viewing angle can only be done along the vertical line, so be sure to position the device correctly on the windshield along the horizontal line as close as possible to the windshield's centre.



## Adjusting the Viewing Angle

1. Adjust the viewing angle along the vertical line.
2. Fix the position with a screwdriver.

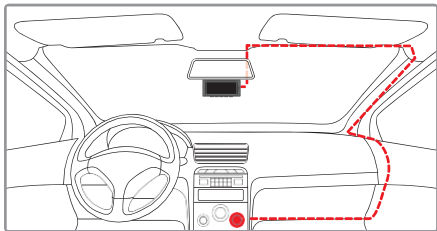


To get the best record, ensure that the camera captures the image in a proportion of 30% sky / 70% road.

## Power connection

Use only the power adapter included to power the device and to charge the battery. Connect the power cable to the mount or DVR, and then plug the charger plug into the car's cigarette lighter/socket.

When the car engine starts, the device turns on automatically.



#### **Note:**

For the best view, the device should be installed near the rear-view mirror in the centre top of the windshield. To get the best record, ensure that the camera captures the image in a proportion of 30% sky / 70% road.

## **6. DVR Operation**

### **Device preparation**

A. Insert the microSD card into the memory card slot. Turn off the device before installing a memory card.  
Insert the memory card until it is locked.

#### **Installing the card:**

Turn the microSD card to the slot as shown in the picture and insert it until it clicks.



**WARNING!** Attempting to insert a memory card wrong may damage the device and/or the memory card itself. Make sure the memory card is in the correct position.

**WARNING:** Do not apply excessive force when inserting a memory card to avoid damage to the device. To insert a memory card, insert the microSD card into the slot until it locks (clicks). To remove the memory card, push the card until it clicks and remove the card from the slot.

## Turning the Device ON/OFF

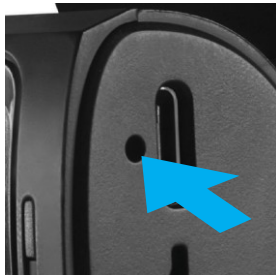
When the car engine starts, the device turns on automatically.

## Turning ON/OFF and Resetting Manually

Press and hold the power button for 3 seconds to turn on the device manually.  
To turn the device off, press and hold the power button for 3 seconds.



Press on the Reset button with a suitable sharp object if no other button responds.



## Loop recording

- 1) Insert the microSD card into the memory card slot; the Loop Recording mode turns on automatically.
- 2) Set the duration of video recordings in the appropriate section of the menu of Loop recording. It is recommended to set a 3-minute cycle (see Settings).
- 3) When there is no more space left on the memory card, the device will automatically replace the oldest video file with the newest one; an exception is the files protected from deletion.

- 4) The video recordings taken in Loop Recording mode are stored in the Video folder.

## Emergency recording

The Emergency recording is designed to create a video file protected from overwriting and deletion. Press the Menu button to create such a video file. Now the current video file is marked to prevent it from being deleted/overwritten. The recording status of this file (timeline) is displayed at the bottom of the screen.

2021-03-04 14:05:37

The Emergency recording is activated automatically when the G-sensor triggers (sudden acceleration/deceleration), or at a collision. The Emergency recording is locked automatically to avoid erasing during loop recording. The files protected from overwriting are stored on the memory card in the Event folder.

## Updating the firmware

- 1) Please download the firmware file at [www.neoline.com](http://www.neoline.com) and extract the file.
- 2) Then format the memory card and move the extracted file(s) to the microSD memory card.
- 3) Insert the memory card with the file into the DVR memory card slot.
- 4) Press and hold the OK button meanwhile connecting the device to the power source.
- 5) While the firmware file is downloading, the indicator flashes.) Release the OK button.
- 6) Once the update is complete, the device restarts automatically.
- 7) Enter Settings menu and check whether the correct firmware version is displayed)
- 8) Format the memory card (use the DVR menu).

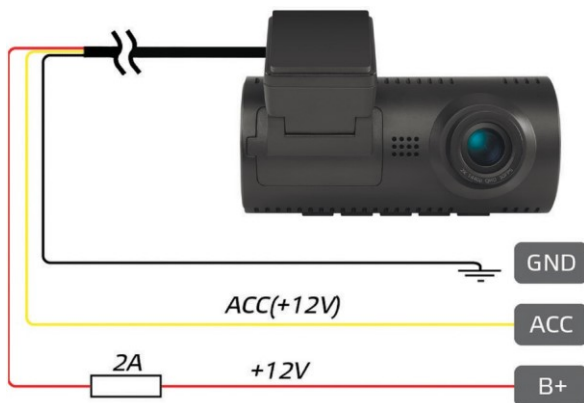
**CAUTION!** Do not turn off the DVR power during the firmware update.

## Parking mode

**CAUTION!** The device can be used in Parking mode when it is connected to the vehicle's auxiliary power outlet using the Neoline Fuse Cord X81/X83.

You can purchase this cable at the official online store [www.neoline.com](http://www.neoline.com) or any authorized retailer.

Wiring Diagram— Connecting Device via Fuse Cord X81/83



When the ignition is turned off, provided that the connection is correct, the device will enter the Standby mode, following the G-sensor (shock sensor). When the G-sensor is triggered, the device will turn on and start recording.

The first 30 seconds of video recording after triggering is recorded into the Event folder, and the following videos are saved in the VIDEO folder. The recording will continue as long as the G-sensor is repeatedly triggered after switching on the Video Recording mode instead of the Standby mode. The device will enter the Standby mode if the G-sensor is not triggered for 1 minute.

For example, if the Loop recording setting is set to 1 minute, then when the G-sensor is triggered, the 30-second video is recorded into the Event folder and the next 30 seconds of the recording are stored in the VIDEO folder. In this case, if the G-sensor re-triggers at 25 seconds, a file with a length of 55 seconds (30 seconds + 25 seconds) will be recorded into the VIDEO folder. If the triggering occurs at 45 seconds, then 2 files will be recorded in the VIDEO folder: 60-seconds (since the loop recording is set for 1 minute) and another 15-seconds video.

If the Loop recording settings are set to 3 or 5 minutes long, then the first video in the Event folder will be 75 seconds instead of 30 seconds.

## Playback/Deletion

### Playback

Go to the View Files menu when in standby mode and select one of the available folders to view the files: Event (for emergency recording), Video (for normal recording) or Photo.

Select the file to view using Up/Down and press the Confirm (OK) button to start playback. Click the OK button again to pause the playback.

Press the Right button to speed up the playback (x1, x2, x4, x8).

### Deletion

Press the ON/OFF button while viewing a list of files in one of the 3 folders. The following options will appear: **Delete files**. When entering this menu item, the user can delete all files or only the file that was selected when the ON/OFF button was pressed.

**Lock** (for the Video folder). When entering this menu item, the user can lock the current file, i.e. make it unrecordable. In this case, such a file will be moved to the Event folder.

**Unlock** (for the Event folder). When entering this menu item, the user can unlock the current file, i.e. make it recordable. In this case, such a file will be moved to the Video folder.

Please follow the instructions on the screen and press the OK button to confirm the operation

**Note:**

Deleted files cannot be restored. Backup all necessary files before deletion.

## **Menu Items**

### **Video Settings**

- Video resolution
- Video codec
- Loop recording
- Sound recording
- G-sensor
- Exposition
- Reg. number
- Parking mode
- Image rotation
- Interval recording

### **System Settings**

- Language
- Formatting
- Time and date
- Time zone
- Speed units
- Auto display off
- Sound

- Auto power off
- Reset
- System information

## **View Files**

- Event
- Video
- Photo

## **7. Troubleshooting**

### **- Cannot take pictures/record video**

Check if there is enough free space on the microSD card and if it is not blocked.

### **- Spontaneous stop at recording**

Too many video files are stored. Only use at least class 10 high-speed microSD cards by proven manufacturers.

### **- "Wrong file" message appears when trying to view a photo/play a video file**

File writing failure due to microSD card file system error. Format the microSD card.

### **- Blurred image**

Check the lens for dirt and greasy fingerprints. If there is any, wipe the lens with a soft cloth before use (it is recommended to use special care products for the optics in order not to damage the surface of the lens).

### **- Darkened image when taking pictures of the sky or water.**

Too much contrast in the scene may affect the exposure. Change the exposure in the settings menu.

### **- Deadlock (no image/no key response)**

Press the RESET button to reboot the device Deleted files cannot be restored. Backup all necessary files before deletion.





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in PRC

Official site: [www.neoline.com](http://www.neoline.com) Tech.Support:  
[support@neoline.com](mailto:support@neoline.com)

Warranty: 24 month5V

DC, 1.5A

Operation environment temperature: -10°C...+60°C

Importer and authorized service organization: please  
see the package