NEOLINE

NEOLINE G-TECH X76

TWO-CHANNEL DASHBOARD CAMERA

User Manual

Dear customer!

Thank you for purchasing NEOLINE G-TECH X76 car digital video recorder (DVR)! 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.

Content

1. Operation Conditions

• Please read the warranty terms carefully.
• In case of any inadequate operation of your Neoline DVR, please be sure to have the device software updated before contacting your service centre/vendor/other authorized body.
The latest SW version is available at http://neoline. com/update/   and here you can also find how to get the update. If you still have any questions, please feel free to use one of those phone numbers at the site or just leave your request at http://neoline.com/support/
• Never insert or remove a memory card while the DVR is on. It may cause damage to the device, memory card and recorded video files.

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

• Since this DVR utilizes h.264 codec, some properties of the recorded files (such as bitrate) can only be viewed with an h.264 supporting applications. These are, Windows 10 media player or VLC Player.
• 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.
• **NOTE!** In some cars, the power is supplied to the 12/24V socket even when the ignition is off. It is recommended to disconnect the device from the vehicle network to avoid the battery discharging.

• 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.

• 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 take NO responsibility for any data lost or damaged 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.

• Do not manipulate the device while driving to be sure you are driving safe in accordance with local law.

• Set the correct date and time before using the device.

• Heating of the case during operation is normal.

• Handle the device with due care; 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. Please check for any updates at www.neoline.com You may download this manual by pressing Download button on product page.

2. Specifications:

- Resolution: Front camera: Full HD 1920*1080 (30fps)
  Rear camera: Full HD 1920*1080 (30fps)
- FOV angle: Front camera: 140°
  Rear camera: 140°
- Display: IPS 2"
- Gold Capacitor board*
- Rear camera cable length: ~10m
- Rear camera protection class: IP67
- Magnet charger mount with a rear camera socket
- Built-in microphone/speaker
- G-sensor
- Parking mode
- Night mode
- Motion sensor
- Loop recording
- Continuous recording
- Auto Power On
- Date/time stamp
- State number stamp
- 8GB to 256GB MicroSD (Class 10)
- Storage temperature: -20°C...+70°C
- Operation environment temperature: -10°C...+60°C
- Input voltage: 5V DC, 1.5A
- Charging input voltage: 12-24VDC
- Dimensions: 74x42x35mm
- Weight: 93g

*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.

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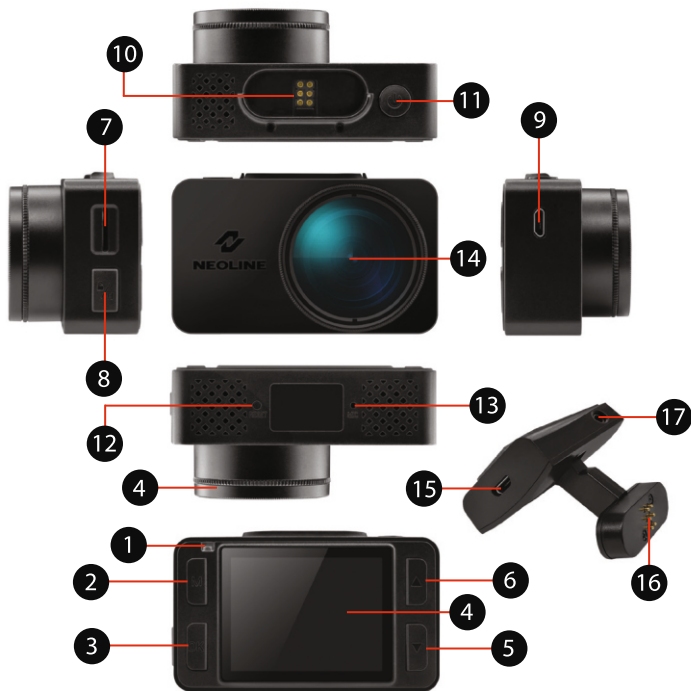You may download this manual by pressing Download button on product page.

3. Equipment:

- Neoline G-Tech X76 Dual DVR
- Windshield magnet mount
- Anti-glare CPL filter
- FullHD Rear Camera
- Rear camera cable
- Vehicle USB charger
- User Manual
- Warranty card

4. Description of the device and its buttons

1. Operation indicator
2. Mode selection button M
3. Confirmation button OK
4. Display
5. DOWN button
6. UP button
7. Memory card slot
8. Hot-key button
9. Power cable connector (microUSB)
10. Contact area
11. ON / OFF button
12. RESET button
13. Microphone
14. Lens
15. Power cable connector (microUSB)
16. Contact area
17. Rear camera connection

Button description

Button	Description
ON/OFF	Press to turn the device on. Press and hold to turn the device off. When the device is on, press to turn the backlight off.
M	In standby mode (no recording), press to enter/ exit the Menu. Press and hold to switch between VIDEO-PHOTO PLAYBACK.
OK	Press to start/stop recording. When in the menu, use to confirm the selected menu item.
UP	Press to move up the menu. In the VIDEO and PHOTO mode, press and hold to zoom in; and use to select a file in Playback mode.
DOWN	Press to move down the menu. In the VIDEO and PHOTO mode, press and hold to delete the image (if you used zoom + before); and press to select a file in the Playback mode.
HOT-KEY	Press to block video recording. Press and hold to activate an additional feature (for example, Parking Mode).
RESET	Press to reboot, if no other button responds.

Operation Description

Status	Value
Flashing red	Recording
Flaring red	Software update in progress

5. DVR Installation

Installation on the windshield

- Choose the installation location in advance, as the adhesive tape on the mount is of single use.

- Degrease the mounting location and warm it up to ensure strong adhesion.

- Sit the DVR onto the mount and turn the DVR on. Make sure that the horizontal is kept and the lens captures the image symmetrically both on the left and right when evaluating the display image. Then remove the protective film from the surface of the adhesive tape and lean and press the mount against the windshield.

Adjusting the viewing angle

NOTE! 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 center.
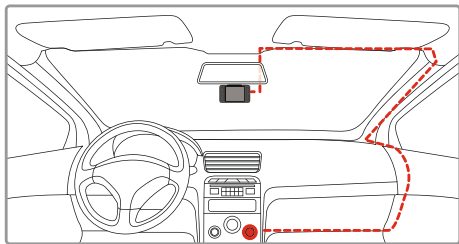While pulling or pushing the device in the holder, ensure that the camera captures the image in proportion of 30% sky / 70% road.

Power connection

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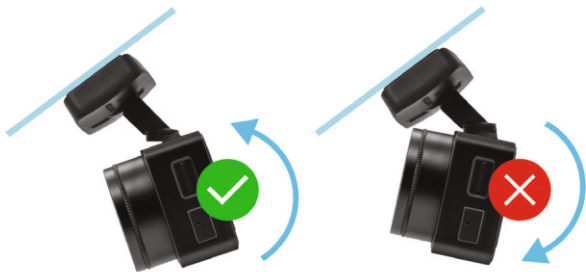The device turns on automatically when the car engine starts.

Note!

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

Dismounting

Holding DVR at the bottom, pull it down and counterclockwise as against the back wall of the mounting slot.

Anti-glare filter (CPL filter)

The anti-glare (CPL) filter is an optical filter to ensure there are no glares and reflections on the windshield to improve video quality.
Please follow the instructions below for the best video results when using a CPL filter:

1. Install the DVR on the windshield in accordance with the recommenda tions above.
2. Put a sheet of white paper on the dashboard.
3. Rotate the CPL filter until the reflection of a sheet of white paper on the DVR screen is minimal.

At night, we recommend to remove the CPL filter to achieve the best recording result.

We recommend you to remember the position of the guide line on the outer ring of the CPL filter after adjusting its position; and next time setting the correct position will take less time.

6. Device operation

Device preparation

A. Insert the microSD card into the memory card slot.

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

Please 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.
Removing the microSD card:
press the card slightly and then
remove it from the slot.

CAUTION! Inserting the memory card in a wrong way may damage both the device and the card itself. Make sure the memory card position is correct.

WARNING: Do not apply excessive force when inserting a memory card to avoid damage to the device. Please insert the microSD card into the slot until it locks (clicks) to fix a memory card; if necessary, use a needle to push the card further. Push the card until it clicks and remove the card from the slot to remove the memory card, if necessary, use a needle to push the card.

Turning the device on/off.

The device turns on automatically when
the car engine starts.
Press the power button to turn the device
on manually.
Press and hold the key for 3 s to turn the
device off.

Loop recording

1) Please insert the microSD card into the memory card slot; the Loop Recording mode turns on automatically.
2) It is recommended to set a 3-minute cycle (see Settings).
3) The device will automatically replace the oldest video file with the newest one when there is no more space left on the memory card; exception is the files protected from deletion.
4) Loop records are stored in F_Driving and R_Driving folders, one for each camera.

Emergency recording

The main purpose of Emergency recording is to protect the current video file from being overwritten and deleted. Please, press the **Hot-key** button to protect the current video file; now the current video file is marked to prevent it from being deleted/overwritten.

An icon appears on the screen.
Emergency recording is activated automatically when the G-sensor triggers (sudden acceleration/ slowdown, an accident) or at collision. Emergency recording is locked automatically to avoid erasing during loop recording. Locked files are stored at F_Locked and R_Locked folders for front and rear cameras accordingly.

NOTE! Files in the Locked folder can occupy no more than ~30% of the memory card space (depending on the file size). Once the Locked folder is full, the device starts a loop recording into the Locked folder. When the device is on, the display shows the warning "Locked folder is full!" To avoid losing the necessary files, please transfer them from the memory card (for example, to a PC) in due time.

Night mode
When you enable this function, the device determines the level of illumination and automatically corrects the color of the image.

Parking mode

If the Parking mode is assigned as an additional function in Settings, press and hold the Hot-key button to activate the parking mode.
If you use the original accessory to connect the DVR to the fuse box, please turn on Parking Mode in the menu.
When an original accessory is used to connect to the fuse box and the Parking mode is on, the device activates the parking mode when the ignition turns off.
Videos recorded in Parking Mode are 30 seconds long.
Please, select Parking mode, then select On and press OK to access the submenu and open the parking mode settings.

Settings available:

- Resolution
- G-sensor sensitivity: 1 to 10 (where 10 is the maximum, and 1 is the minimum sensitivity of the shock sensor)
- Parking Mode duration: (once the parking mode is activated, the device waits the set time and turns off
- Interval recording: Off / 125ms / 200ms / 250ms / 500ms / 1000ms

Setting value	Real time within a 30 second video when recording a 30 fps (25 fps) video
125 ms	112,5 s (93,75 s)
200 ms	180 s (150 s)
250 ms	225 s (187,5 s)
500 ms	450 s (375 s)
1000 ms	900 s (750 s)

- Trigger Mode: By motion sensor * / By shock sensor / Both

CAUTION! The device consumes the car battery more actively when the motion sensor is on.

*Every time a motion is detected in front of the DVR, the DVR starts recording automatically.
Parking Mode videos are stored in F_Parking and R_Parking folders for front and rear cameras accordingly.

Playback/Delete Files

Playback

- In Standby mode, press and hold the M button to switch to View mode.
- Select the file to view using Up/Down and Confirm keys.
- Using Up/Down keys, select the file you need to view and click Confirm button to start playback.

Deletion

- Press M to enter the submenu.
- Use UP/DOWN to select Delete and press OK.

Item	Description
Delete one	Delete this file.
Delete all	Delete all files.

- Select the option to delete all files/one file, then confirm your choice by following the instructions on the display.

NOTE! Locked files can only be deleted when unlocked; use the Lock item of the submenu in the Playback mode to unlock them. Another way to delete locked files is to format the memory card.
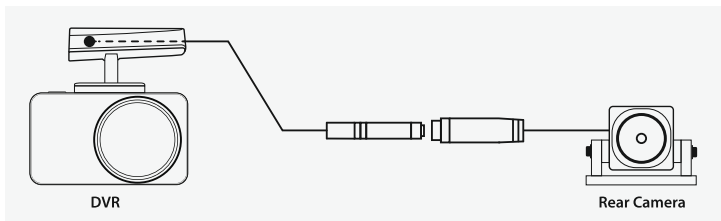
Note.
Deleted files cannot be restored. Backup necessary files before proceed with deletion.

Rear Camera Connection
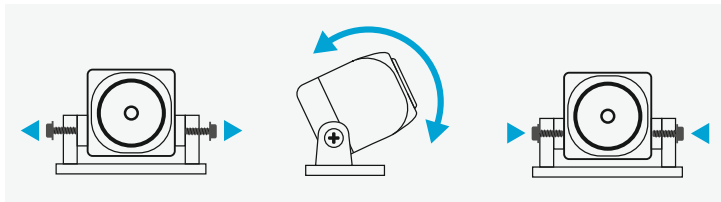
Use the rear camera connector with the magnet mount.

NOTE! The rear camera is designed only to record events behind the car and cannot be used as a parking camera.

DVR   Rear Camera

Setting the rear camera FOV angle

Please determine in advance a location for installation of the rear camera inside or outside the vehicle (bumper, license plate bracket, etc.).
Please try to put the camera in the center to get the best FOV. Determine the optimal angle of the camera based on the DVR image, fix the position of the camera, mount it and then screw it hard using the screws provided.

Menu items
VIDEO mode

Resolution:
Resolution: FHD + FHD Max / FHD + FHD Eco / FHD + HD

Loop recording:
Off/1min/2min/3min

Hot-key:
Parking mode
This setting assigns an additional function to the Hot-key. As you launch the original accessories, the firmware upgrades and the list of options for this setting expands.

Parking Mode:
Off/On
When On is selected, the display shows a list of Parking mode settings. See "Parking mode".

Rear camera:
On/off

WDR: On/off
It is not recommended to turn off this setting, since WDR provides quick exposure setting when the recording conditions suddenly change.

Night mode:
Exposure:
-2 to +2 (step = 1/3)

Sharpness:
Sharp/Standard/Soft

Sound recording:
G-sensor sensitivity:
1 to 10 (step = 1)
Set the appropriate level depending on the operating conditions. Too high level will result in a large number of locked files.

State number:

Enter the vehicle's state number using numbers and letters of the Latin alphabet.

Date/time stamp:

On/off

Date/Time:

use these buttons to set the current date

Auto display off:

Off / 7 sec / 30 sec / 1 min / 3 min

Key tones:

On/off

Language:

select the preferred menu language from the list

Formatting reminder:

Off / 15d / 30d / 60d

Formatting:

Use the display instructions to format the memory card.

CAUTION! Files cannot be recovered after formatting the memory card. Please, save the necessary files to your computer before formatting the memory card.

Reset:

use to reset the device to factory settings

Software version:

use to view the software version

PHOTO

Resolution:
3M/2M/1.3M/VGA

White balance:
Auto balance / Sunny / Cloudy / Tungsten / Fluorescent

ISO:

Auto balance / 100/200/400

Exposure:

-2 to +2 (step = 1/3)

Stabilisation:

On/off

Quick view:

Off / 2 sec. / 5 sec.

Date/time stamp:

Off / Date / Date and Time

PLAYBACK mode

Delete:

Delete current file / Delete all files

Lock:

Lock/Unlock/LockAll/UnlockAll

Slide show:

2 seconds / 5 seconds / 8 seconds

How to Update Firmware?

1) Download the firmware file at www.neoline.ru and extract the file.
2) Format the memory card and move the extracted file to the microSD memory card.
3) Insert the memory card with the file into the DVR memory card slot.
4) Connect a power source and turn the device on.
5) While the firmware file is downloading, the indicator flashes.
6) The device restarts automatically once the update is complete.
7) Enter Settings menu and check whether the correct firmware version is displayed
8) Format the memory card (use the DVR menu).

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

NOTE! If the memory card is not formatted after the update, the update process will start again the next time the DVR is on.

7. Troubleshooting

This section helps you to eliminate problems the device may have under normal operation.

- Failure to photograph/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. Use at least class 10 high-speed microSD cards by proven manufacturers.

- When you try to view a photo/play a video file, the "wrong file" message appears.

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

- Blurred image.

Check for dirt on the lens and the CPL filter. Wipe the lens with a soft cloth before use if any (it is recommended to use special care products for the optics in order not to damage the surface of the lens).

- Darkened image when photographing the sky or water.

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

- Hangup (no image, no button response).

Please, press RESET button to reboot the device.

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