



NEOLINE

X-COP 9300*

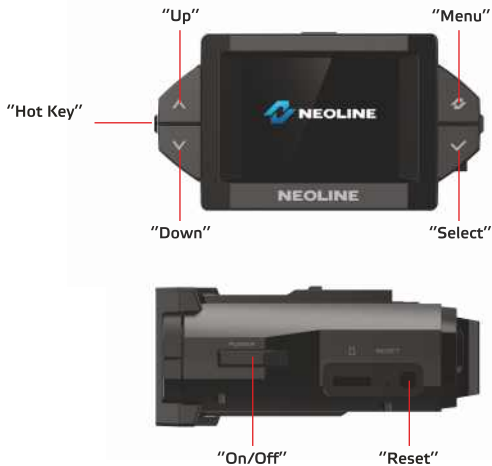
RADAR DETECTOR AND DVR HYBRID



Quick Start Guide

* For all Neoline X-COP 93xxx models

Description of connectors and keys



Installation Procedure

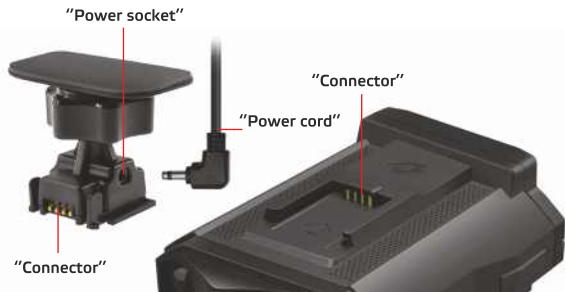
Mounting the device with a 3M scotch tape

1. Take the 3M scotch tape windshield mount (supplied).
2. Insert the free end of the mount into a special opening on the top of the device.
3. Attach the device to the windshield with the 3M scotch tape mount. Try to install the hybrid correctly on the first try; detaching the 3M tape requires effort.
4. Fix the hybrid in a horizontal plane so that it makes no obstruction to radar signals or road view.
5. To get the best record, the DVR frame should capture 30% sky and 70% road.
6. Take the 12-24 V Neoline Power Cord Hybrid (supplied) and connect it to the car socket and to the hybrid power socket.

3M tape mount with an active charger

*(supplied with Neoline X-COP 9300 only.
Not supplied with other Neoline X-COP 93xxx models)*

The device's mount connector has special terminals for this mount. The power cord is connected directly to the mount, which makes removing the hybrid from the mount and placing it back quick and easy.



Power cord connection example

1. Neoline Power Cord Hybrid

The power cord connection method shown on the diagram is recommended as the safest one, since it is when the driver's view is unobstructed.



2. Neoline Fuse Cord 3 pin

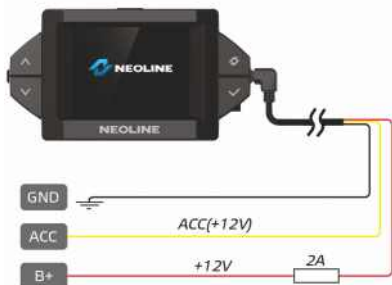
(supplied with Neoline X-COP 9300 only.

Not supplied with other Neoline X-COP 93xxx models)

Connect the power cord to the fuse box as the diagram shows.

Connect the power cord to the fuse box in accordance with the instructions:

- Connect the BATT (+) power cord to the source providing stable 12V voltage.
- Connect the ACC cord to the power source (ignition circuit).
- Connect the GND (-) cord to the car earth.



Anti-glare CPL filter

(supplied with Neoline X-COP 9300 only.

Not supplied with other Neoline X-COP 93xxx models)

The CPL filter helps reducing glares and reflections on the windshield. Besides, it improves the video contrast significantly. Rotate the filter to minimize the glares. It is best to use the filter in the day time as the image may darken at night. Around the hybrid lens, there are special notches to mount the CPL filter.

Controls and functions

Up/Down

1. Press to adjust the volume.
2. When in Menu, press to switch the Menu titles.
3. Press and hold both keys for 2 seconds to turn the radar module on or off, where necessary. When the radar mode is off, the mode icon is inactive.

Menu

1. Press to enter Menu
2. Press and hold for 2 seconds to enter the Quick Settings mode where you can:



- turn the radar module on/off (where necessary);



- turn the microphone to record audio inside the car on/off;



- turn the video recorder on/off;

Select

1. Press to select the highlighted Menu title.
2. Press and hold for 2 seconds to start recording the current screen into the Events folder (emergency recording).
3. When the power cord is disconnected, press to enter the Photo mode.
4. Press to switch a detection mode (X-COP, City, Motorway, Turbo).



The City mode is the mode of the lowest police radar detection sensitivity. At the same time, it also means the lowest number of false warnings.



The Motorway mode is the mode of standard police radar detection sensitivity. The number of false warnings is medium.



The Turbo mode is the mode of the highest police radar detection sensitivity and the poorest interference resistance.



The X-COP mode is the mode of auto selection of frequency bands, sensitivity modes (City/Motorway) and false warning filters based on the vehicle speed.

Driving	Speed	K	Arrow:	Mode	Z-signature filter	Notification
In traffic jams	0-24 km/h	ON	ON	City	ON	Silent. Display only
Small residential areas	25-49 km/h	ON	ON	City	ON	Sound alerts + display
Big cities and highways	50-89 km/h	ON	ON	Motorway	ON	Sound alerts + display
Highways and motorways	90+ km/h	ON	ON	Motorway	OFF	Sound alerts + display

Menu + Select

Press and hold both keys for 2 seconds to enable/disable the Z-signature filter.



Hot Key

Press and hold for 2 seconds to assign one of the Hot Key functions below:



- pressing the Hot Key adjusts the display brightness.
It is useful at night when the display brightness is excessive.



- pressing the Hot Key adds a Red Zone.

A **Red Zone** is a zone that requires your special attention. (E.g. a section of speed bumps, a school, a busy intersection, a quick hide, etc.)

When in a Red Zone, press the Hot Key to unmark the zone red.



- when receiving a false warning, pressing the Hot Key adds a Silent Zone.

A **Silent Zone** is a zone where broadband signals are detected, but where there are no police radars (false warnings). This may occur near gas stations or shops with automatic entrance doors. When entering a Silent Zone, the proper icon is displayed.

When in a Silent Zone, press the Hot Key to unmark the zone silent.



- pressing the Hot Key saves the current video to the Event folder (memory card). The Event folder keeps the videos recorded at the G-sensor (bump sensor) on.

On/Off

1. Press and hold for 2 seconds to turn the device on/off manually without stopping the car engine.
2. Press once to mute voice announcements.

Note Since the hybrid has no battery power source, it has to be connected to the car socket to work properly. However, it has a built-in super condenser to ensure any current video recording is finished properly in case the device turns off.

Restart

Press to restart the device.

Description of main screen icons



Data displayed once a police radar is detected



Z-signature filter

A Z-signature filter is a know-how developed by Neoline to reduce the number of false warnings. It recognizes and blocks most false warnings caused by other cars' blind zone sensors.

The key feature of our filter is that it blocks no true warnings (unlike many other similar filters).

Selecting the K band frequencies

K Broad	23.900 - 24.250 GHZ	Standard setting to detect all police radars within the K band
K Narrow	24.045-24.190 GHZ	Used to minimize the number of false warnings. ATTENTION: It is recommended when you know the exactly frequencies the police radars operate at in your region.
K Ultra-Narrow	24.045-24.145 GHZ	Used to minimize the number of false warnings. ATTENTION: It is recommended when you know the exactly frequencies the police radars operate at in your region.

Voltage disconnection

If the voltage in the car power circuit drops below 11V, a warning message appears on the device display and the device turns off to avoid discharging the car battery.

DVR settings

Display brightness: adjusting the display brightness (the higher the value, the brighter the display).
Display auto turnoff: turning the display off in a set time.

Screensaver: showing one of the following screensavers while the display is off:

Speedometer: showing current speed and date

Dark: showing speedometer and GPS announcements on a black background.

Resolution: 19201080 (Full HD) /1280720 (HD)

Record audio: recording audio in the car.

Video quality: recording the video quality; the higher the bitrate, the better the quality; yet, the video file size also increases.

Sharpness: setting the image sharpness.

Contrast: setting the image contrast.

Exposition: setting the image exposition.

WDR: Wide Dynamic Range. The WDR feature provides colour/brightness/sharpness balance of the images in bad capturing conditions.

Sensitivity (driving): setting the G-sensor sensitivity at driving.

Sensitivity (parking): setting the G-sensor sensitivity at parking.

Motion sensor (parking): setting the motion sensor sensitivity at parking.

Parking mode: setting the time to activate the Parking mode when the car does not move (yet the engine is ON). Once the engine is OFF, the Parking mode activates immediately.

Record duration (driving): setting a single video record duration.

Cycled recording: setting cycled recording to the Event folder.

Record duration (driving): setting a single video record duration.

Cycled recording: setting cycled recording to the Event folder.

Satellite communication voice announcement: voice announcement of any satellite communication becoming available.

GPS time correction: auto time correction according to the time zone.

Date/time: setting date and time in case the GPS time correction is off.

Date and time OSD: (de)activating the video date and time OSD.

Speed OSD: (de)activating the car speed OSD.

<100 km/h speed OSD: (de)activating the car speed OSD ONLY shown when the speed is less than 100 km/h.

Night mode: setting the time the night mode video recording activates.

In the night mode, the video is noisier; yet, more details in dark areas of the road OR roadsides are visible.

Car registration number OSD (enter the number): (de)activating the car registration number OSD.

Low voltage turnoff: setting the lowest voltage the device is on at, any lower voltage turning it off.

Language: selecting the interface language.

Default settings: setting the default settings.

Distribute memory card capacity: auto distributing the memory card capacity between the Driving, Event and Parking folders.

Format memory card: deleting all the memory card data.

Software version: showing the SW current version

Radar detector settings

Auto mute: decreasing the volume by 30% within 6 seconds after the detected signal announcement starts. The volume will be restored 10 seconds after the announcement ends.

GPS mute unless: while the car speed is less than the set value, no GPS sound announcement is made.

NOTE: This feature is unavailable when the X-COP mode is on.

RD mute unless: while the car speed is less than the set value, no radar detection sound announcement is made.

Voice: enabling/disabling police radar voice notification.

Sound: enabling/disabling all sound notifications.

GPS announcement: enabling/disabling announcements of police radars and cameras registered in the current GPS database.

RD announcement: enabling/disabling the RD police radar announcements.

GPS priority: prioritizing the GPS announcements. (When on, the GPS announcements are both visual and aural, while those of the RD are only visual).

RD priority: prioritizing the RD announcements. (When on, the RD announcements are both visual and aural, while those of the GPS are only visual).

Auto Turbo: auto switching to the Turbo mode once the set speed is reached.

Silent Zone Radius: setting incoming broadband signal announcements off within the specified radius.

Red Zone Radius: setting the radius of the Red Zone (a zone where your special attention is required, e.g. a section of speed bumps, a school, a busy intersection, a quick hide, etc.)

Overspeed tolerance: the set value is added to the allowed speed value for each camera set in the GPS database.

Maximum speed: if the car speed is higher than the set value, a sound announcement is generated.

GPS announcement distance: it is the distance to the ahead GPS database point where the GPS announcement starts; the distance may be defined:

- **By the database:** each camera in the database has its own announcement distance (m).

- **By settings:** 300 m / 400 m / 500 m / 600 m / 700 m / 800 m / 900 m

- Based on the current vehicle speed:

Speed	0 km/h to 60 km/h	61 km/h to 70 km/h	71 km/h to 80 km/h	81 km/h to 90 km/h	91 km/h to 100 km/h	101 km/h to 110 km/h	110 km/h
Announcement distance	600m	650m	700m	750m	800m	850m	900m

Passing announcement: the announcement of passing a GPS point registered in the database.

Z-signature filter: enabling/disabling the Z-signature filter (see above)

Metric system: setting the speed measurement unit: km/h or m/h

Enabling/disabling detection in the following bands: X, K, Ka, Laser, Strelka

K in City: enabling/disabling the K band when in the City mode. This feature is useful in megacities where there are no mobile radar systems but the noise level is much higher. By disabling the K band in the City, you only receive information from the GPS database.

Be sure to switch to the Motorway/Turbo mode when driving out of the city.

Enabling/disabling points of the following types in the GPS database: traffic control posts, police hides, dummy radars, average speed cameras, stationary cameras with no radar modules, Strelka radars and stationary radars.

Delete all zones: deleting all the Red and Silent Zones set by the user (the points will not be deleted from the GPS database).

Demo: displaying examples of police radars and cameras detection.

Updating the Firmware

- 1) Visit www.neoline.com (Update section)
- 2) Select Hybrids, and then your hybrid model.
- 3) From the drop-down list, select the latest GPS database and firmware to download.
- 4) Insert the memory card into your PC and copy the downloaded files to the card.
- 5) Insert the memory card into the hybrid memory card slot.
- 6) Turn the hybrid on; go to Menu/Update and confirm the firmware update; updating starts.
- 7) Once the update is complete, the device continues its standard operation.

Technical characteristics

DVR specifications:

- Matrix: Sony
- Display: 2.0" TFT (240320)
- Resolution: 19201080 (Full HD) 30 fps, 1280720 (HD) 30 fps
- FOV angle, Neoline X-COP 9300: 135° (5 lanes)
- FOV angle, Neoline X-COP 93xxx: 130° (4 lanes)
- 6 glass lenses
- Video format: MP4
- Event record duration: 5 seconds before and 25 seconds after the event
- Memory card slot: MicroSD (SDHC: 2Gb ~ 32Gb, SDXC: 128Gb), class 10
- G-sensor, motion sensor

Radar detector specifications:

- K band (23.900 to 24.250 GHz)
- KA band (33.400 to 36.000 GHz)
- Laser (800 nm to 1100 nm)
- Strelka (24.150 GHz)

GPS specifications

- GPS module: MK-110C (U-BLOX7)
- GPS antenna: 2525 mm
- Warm start: <1 min
- Cold start: <5 min

General characteristics

- Input voltage: 12~24 VDC
- Power demand: 240~600 mA
- Dimensions: 109.5 mm (length) 84 mm (width) 46.5 mm (height)
- Operation temperature: -10°C ~ 60°C

Operation Conditions

1. Install the hybrid in accordance with the manual.
2. Only use the supplied power cord. Using a third-party charger may compromise the device performance.
3. Observe the storage and operation temperature conditions. Avoid extra sunlight exposure.
4. When leaving the car, make sure the device is turned off; avoid leaving a powered device unattended for too long, as this can cause excessive car battery consumption and reduce the device life.
5. Avoid dropping/jamming the device.
6. To avoid accidents, never do anything to the device while driving.
7. Before cleaning the car interior, remove the hybrid to avoid cleaning agent spilt on it, as this can compromise the appearance and/or performance of the device.
8. Do not install the device where the airbag appears.
9. Use the voltage of 12-24 V.
10. Avoid any covers on the device when operating.
11. The hybrid readings may be inaccurate due to possible third-party emissions. Powerful transmitters may affect proper operation of the device. Such transmitters may include, without limitation: car dead zone sensors, sliding door motion sensors, cellular network base stations, non-standard electronic devices in the car (mobile phones, other GPS/radar detector devices, etc.) Detection of secondary transmitters is not a device malfunction.
12. The hybrid is only intended for detecting sources of radio emissions. The manufacturer cannot guarantee detection of all the sources nearby since the instruments are developing constantly.
13. The hybrid may operate incorrectly where there are athermal or heated windshields. The coating may compromise detection of broadband signals and correct operation of the GPS module.
14. Mounting the device with 3M adhesive type is only possible once. Therefore, choose the location wisely.
15. Never remove the memory card during operation, for it may corrupt the data or affect the unit.
16. To record high-quality video, make sure the camera view is unobstructed and the camera lens is clean.
17. When driving, the unit is affected by vibrations that may corrupt the camera focus. Check the camera focus carefully before use.
18. The manufacturer recommends using only memory cards of Class 10 or higher. The following Class 10 memory cards have been tested to work correctly with the hybrid: Samsung EVO Plus, Toshiba Exceria, Sony micro SDHC, Kingston micro SDXC, Transcend Premium 400x, Qumo micro SDXC. Beware of counterfeits!
19. Format the micro SD card every two months to avoid damages to the file system.
20. The built-in supercapacitor helps you finish your recording correctly. Normal operation of the

21. The satellite search time may increase due to the weather, time of the day, terrain conditions and certain features of the car.

Such electronic systems as ABS, cruise control systems, frontal collision prevention systems, etc. may compromise the normal hybrid operation. The manufacturer is constantly improving the hybrid software to improve its interference resistance.

The manufacturer reserves the right to modify the equipment and its soft- and hardware without any prior notice.

The manufacturer reminds the user to observe all the laws and regulations governing the operation of DVRs and radar detectors. The manufacturer shall bear no responsibility for its equipment being used in violation of any legal regulations.

In case of any inadequate operation of your Neoline device, please be sure to have the device software updated before contacting your service center/vendor/other authorized body. The latest SW version is available at: <https://neoline.com/update/>. It's also where you can find the update guide. In case of any questions, feel free to use the customer support contacts at the website.

Web: <https://neoline.com/support/>

Thanks for choosing NEOLINE!

For the manufacturer, importer and authorized service organization information, please see the package.

