



X-PRO

SIGNATURE RADAR-DETECTOR

:TSS GROUP



MANUAL

X-PRO Technologies

Wi-Fi Hotspot Update

A unique technology developed by Neoline for updating software and GPS database using Wi-Fi and a "Hotspot" in your smartphone. The peculiarity of this technology is the absence of a special application for updating the device, which greatly simplifies the update process.

EXD Plus module

A special EXD Plus module, also known as LNA (Low Noise Amplifier), is integrated to the radar-detector.

With help of this module it is possible to detect signals from police radars in K-band, Ka-band, MR CD, MR CT and other types over a long distance.

EXD Plus module was specially designed to work in European countries.

SIGNATURE

Pulse police radars have a certain type of signal, so-called "Signature". The library of signatures of the X-PRO radar detector includes police radars (in K, MR, G bands), which can be found in Europe.

In Signature mode, X-PRO recognizes the type of police radar based on its signature. At the same time, all other signals in this range are blocked.

The signature library is a part of the radar detector software and is updated as necessary. New firmware is available in the "Update" section on the website www.neoline.com

FILTER Z-SIGNATURE

A unique technology developed by Neoline to eliminate false alarms from various sources of interference, such as: blind spot sensors of **other** cars, traffic sensors, sliding door and barrier sensors, cellular network base stations, etc.

At the same time, unlike similar technologies from other manufacturers, there is no erroneous blocking of signals from real police radars.

MULTARADAR MODULE

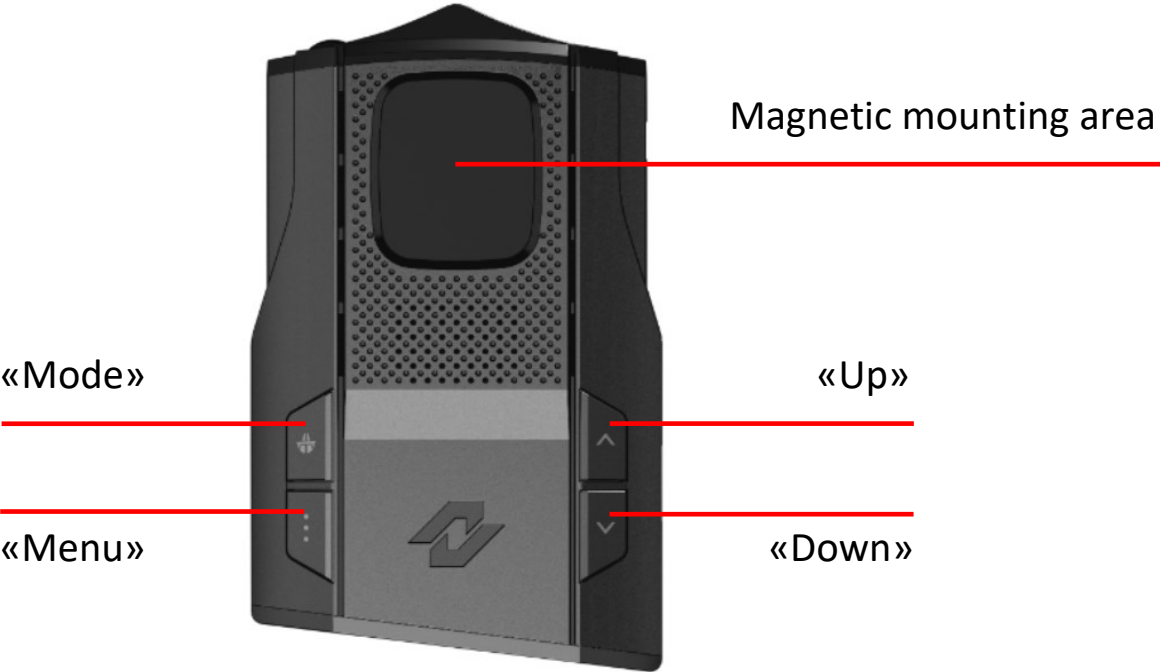
X-PRO detects the elusive Multa Radar CD and CT. These police radars have a unique signal structure, which requires a special platform to detect them.

You can find these radars in many European countries. They are often installed as stationary radars with camera, but they can also be mounted on a tripod or mounted in an unmarked vehicle.

LASER SENSOR WITH AMPLIFIER

The X-PRO has a built-in special laser receiver for detecting the "Poliscan" lidar. This lidar operates fully automatically and is often installed on tripod or in metal box. To detect it in advance, a special laser receiver and lens are required.

Buttons and connectors



Installation

Magnetic mount

1. Stick the metal plate with 3M tape onto the magnetic mounting area of the radar detector.
2. Attach the magnetic mount using 3M tape to a windshield.
3. Attach the radar detector to the magnetic mount on a windshield.
4. Connect the Power Cord to the car's outlet (cigarette lighter) and to the power connector of the radar detector.



Controls and functions

[Up/Down Buttons]

1. Volume adjustment.
2. Switching between parameters in the menu.
3. Adding or removing a Dangerous Zone.

Satellite connection required.

Press and hold the Up button for 1.5 seconds to add a Dangerous Zone.

The Dangerous Zone is an area that requires your attention. For example, a series of speed bumps, a school, a busy intersection, a mobile radar ambush, etc.

- when adding a Dangerous Zone, a voice notification "Dangerous zone has been added" will occur.
- upon entering the Dangerous Zone, a corresponding voice and text alert will occur.

DANGEROUS ZONE

- To remove a Dangerous Zone, press the Up button for 1.5 seconds while you are in a Dangerous Zone. There will be a voice notification "Dangerous zone deleted."

- in the Menu, you can set the range of a Dangerous Zone, for example, by setting the value of 400m.

4. Adding or removing a Silence Zone.

Satellite connection required.

Press and hold the Down button for 1.5 seconds while receiving a false signal alert to add a Silence Zone.

Silence Zone - a zone in which there are signals of K or Ka bands, but there is no police radar (so-called false signals). Often such areas are located near gas stations and stores with automatic doors.

- when adding a Silence Zone, a voice notification "Silence Zone has been added" will occur.

- upon entering the Silence Zone, a corresponding text alert will occur (without a voice alert).

SILENCE ZONE

- to remove the Silence Zone, press the "Up" button for 1.5 seconds while in the Silence Zone. There will be a voice notification "Quiet zone removed."

- in the Menu you can adjust the range of the Silence Zone, for example, by setting the value of 200m.

[Menu button]

1. Enter menu.

2. Switching between functions in the menu.

3. Exit the menu and save the settings.

Press and hold Menu button for 1.5 seconds.

4. Turn off the radar detector.

Press and hold Menu button for 1.5 seconds, while you are not in the menu.

[Mode button]

1. In the menu, switch between functions in reverse order.

2. Switching between detection modes: "X-COP", "Signature", "Highway", "Turbo".



Signature – In the "signature" mode, recognition of police radars is always enabled (see page 1 of this manual).

Moving by car	Speed	Mode	Announcement
In a traffic jam	0-40 km/h	Signature	Beep and voice alert are disabled
In a small town	41-70 km/h	Signature	All alerts are enabled. GPS alert priority is higher than Radar alert.

Information on display

1. In standard mode the display shows:

Current speed

Mode



2. When a police radar signal is detected, the display shows:

Current speed

Radar

Band



Signal strength level (scale and digit)

3. When a GPS POI (for example, camera) is detected, the display shows:

Current speed

Distance to GPS POI



Speed restriction

4. While detecting a police radar signal and GPS POI at once, the display shows:

Current speed

Distance to GPS POI

Band



Speed restriction

Signal strength level (scale and digit)

NOTE: while driving in the average speed control zone, the current speed value alternates with the car's average speed value.

Average speed control is carried out by cameras without a radar unit. On a section of a road 2 cameras are installed within a distance from each other. When passing the 1st camera, the current time is recorded. When passing the 2nd camera, the time is also recorded and the average speed of the car is calculated. If the average speed of the car in the area between the two cameras was higher than restricted speed, then a fine is automatically issued.

Traffic control cameras types

Many police cameras can be configured to monitor the following traffic rules (with or without a speed control):

Type of traffic camera
Bus lane control
Red light control
Crossroad control
Backshot control

NOTE: After notifying about the camera, the restricted speed on the current section of the road and the type of traffic control camera (if available) are announced.

For example: «Ramer, 60, backshot».

Functions in the menu

Preset

Automatically adjusts detection and filtering parameters depending on the region or country in which the radar detector is used. Available settings are Europe, Czech Republic, Slovakia.

We recommend to use Europe Preset in all European countries except Czech Republic and Slovakia.

NOTE: After selecting a preset, do not change detection settings manually

Backlight

Change the brightness of the display.

Automute

Decrease the volume by a specified value in percentage (%), within 6 seconds after the start of notification about a detected signal. The volume will be restored 10 seconds after the end of the notification.

Wi-Fi Update

Activating the process of updating the firmware and GPS database by using Wi-Fi Hotspot.

NOTE: before the first update, you must go to the Device Menu to the “Wi-Fi login” and “Wi-Fi password” functions and set the values in accordance with the settings of your smartphone. For more detailed information, see the Wi-Fi HOTSPOT update instructions included with this device.

Wi-Fi login

Enter the exact same name as the name of your “Access Point” (for Android) or “Device Name” (for iOS) of your smartphone.

NOTE: Value length is limited to 8 characters.

Wi-Fi password

Enter the password of your "Access Point" (for Android) or "Tethering" (for iOS) of your smartphone.

NOTE: Value length is limited to 8 characters.

Language

Choose between English and Czech languages.

FW version

Displays the current software version number (separately for GPS firmware and for radar module firmware).

DB Version

Displays the date of the current GPS data base version.

PRO Settings

When you enable this feature, a submenu with additional settings will appear:

NOTE: we recommend to change PRO Settings only for advanced users.

KA 34.0 GHz, KA 34.3 GHz, KA 34.7 GHz, KA 35.5 GHz

Enable/disable KA-band detection according to the chosen frequency.

MR CD

Enable/disable MultaRadar CD detection.

MR CT

Enable/disable MultaRadar CT detection.

MR Filter

Enable/disable false alert filtration in MultaRadar frequency.

Laser

Enable/disable reception of signals from laser police radars (800nm ~ 1100nm).

Auto turbo

Automatic switching to “Turbo” mode when a set speed is reached.

Beep

Enable/disable all sound and voice notifications of the device.

RD Mute till

If the car speed is less than the set value, there will be no sound notification of incoming signals from the radar module.

Priority

GPS: priority in notifications is given to points in the GPS database. During GPS and radar alerts, GPS information is provided to both the display and sound, while radar detection alert is provided only to the display.

RD: priority in notification is given to the radar module. During GPS and radar alerts, information about the radar signal is provided both on the display and with sound, and information about the GPS POIs is provided only to the display.

GPS Average speed

Enable/disable notifications from the GPS DB about average speed cameras.

GPS Dummies

Enable/disable notifications from the GPS DB about “fake” or unworkable stationary police cameras or radars from the GPS DB.

GPS Police patrol

Enable/disable notifications from the GPS DB about possible mobile police radars on roads (for example, police tripods).

GPS Crossroad

Enable/disable notifications about police cameras which control traffic rules on crossroads.

GPS Mute till

If car speed is less than the set value, there will be no sound or voice notification about GPS POIs.

NOTE: this function does not work when X-COP mode is enabled.

Maximum speed

If the car speed is higher than the set value, an audible alert will sound.

Slow down

A single voice notification “Slow down” will occur for the distance set in meters to all GPS POIs.

GPS Distance

Set the start range of notifications about all GPS POIs of your choice:

DB: each camera in the GPS DB has its own value in meters, for which the notification will start.

In meters: according to the set value in the settings (from 300m to 900m).

Speed: based on the current car speed:

Speed (km/h)	1-40	41-50	51-60	61-70	71-80	81-90	90+
Alert distance (m)	300	400	500	600	700	800	900

SZ Radius

Setting the radius of all Silence Zones. In a given radius, there will be no notifications about incoming signals of a wide frequency range.

DZ Radius

Setting the radius of all Dangerous Zones that requires a user attention.

Delete Zones?

Deleting all Dangerous and Silence Zones set by the user.

NOTE: radars and cameras coordinates from the GPS DB will not be deleted.

Firmware update

NOTE: to update the firmware and GPS database via Wi-Fi Hotspot: check the **Wi-Fi update instructions** included with this device.

An alternative method for updating the firmware and GPS DB by using OTG USB:

- 1) Go to www.neoline.com to the "Update" section.
- 2) Select the category "Radar detectors", model "NEOLINE X-PRO".
- 3) From the drop-down list, download the latest GPS database and firmware (if required).
- 4) Connect the USB flash drive to your computer and copy the firmware and GPS database files to it.
- 5) Connect the USB flash drive to the radar detector.
- 6) Turn on the radar detector, the automatic firmware update process will begin.
- 7) After a successful update, the device will go into standard operating mode, and the firmware files will be automatically deleted from the USB drive.

Specification

1. Radar detection frequency

K-Band (24.150GHz +/- 100MHz)

KA-Band (34.0 GHz, 34.3 GHz, 34.7 GHz, 35.5 GHz +/- 120 MHz)

MR CD/CT

Gatso RT3/RT4

Laser (800nm ~ 1100nm)

2. GPS

GPS/Glonass module: Quectel L76-LB

GPS antenna: 25x25 mm

Hot start time: < 1 min

Cold start time: < 5 min

3. Characteristics

Input voltage: DC 12-24 V

Current consumption: 280 mA ~ 410 mA

Operating temperature: -10 C – 70 C

Sizes mm: 130 (L) x 80 (W) x 30 (H)

Terms of Use

1. Install the device properly according to the user manual.
2. Use only the power cable that comes with the kit. If you use a third-party power cable, performance may be impaired.
3. Observe the temperature conditions of storage and operation. Do not expose the device to the sun for long periods of time.
4. Before leaving the vehicle, make sure the device is turned off. Do not leave the device turned on for a long time; this may cause excessive consumption of the vehicle battery and reduce the service life of the device.
5. Do not allow the device to be dropped or crushed.
6. To avoid road accidents, do not perform any manipulations with the device while driving.
7. When cleaning the car interior, remove the device to avoid contact with the cleaning agent.
8. Do not install the device in a place where the airbag deploys.
9. Use 12-24V voltage.
10. Nothing should cover the device while it is in use.
11. Radar detector readings may be inaccurate due to possible third-party emissions. Powerful radiation sources may cause unstable operation of the device. These types of radiation sources, in particular, but not limited to, may include: blind spot sensors in a car, sensors for opening automatic sliding doors, base stations of cellular networks, non-standard electronic devices in the car interior (including devices with a GPS module, radar detectors, mobile phones, etc.). Detection (catching) of extraneous radiation sources by the device is not a malfunction of the device.
12. The radar detector is intended only for detecting sources of radio emissions. The manufacturer cannot guarantee absolute detection of all existing police radars, due to possible changes in the characteristics and parameters of police radars.
13. The radar detector may not work properly in a car with a thermal windshield or heated glass. Due to the fact that these windshields contain metal coating in their construction, the detection of signals of a wide range of frequencies and the correct operation of the GPS module may be impaired.
14. While driving a car, the device mount is subject to vibrations, this may disturb the position of the radar detector. Be careful and check the position of the device before use.
15. Satellites connection time may be increased depending on weather conditions, time of day, terrain and design features of the vehicle.

Electronic systems such as BSD, adaptive cruise control, front collision, automatic braking, etc., in some cases may interfere with the operation of the radar detector. The manufacturer is constantly improving the software of the radar detector to improve its noise immunity.

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

The manufacturer recommends compliance with all laws and regulations governing the operation of radar detectors and is not responsible for use of the radar detector in violation of legal regulations.

Life time: 24 months

Warranty period: 24 months

Date of manufacture: clearly indicated on the individual sticker on the device. Also it is indicated in encrypted form in the serial number (the month and year of production are indicated in 4 characters before the letter "K").

