

KIYO

GPS U1

USER MANUAL



1. PURPOSE OF THE GPS DETECTOR

The purpose of the device is to ensure safe driving conditions, by warning the driver to Fixed Speed Cameras, Section Control Zones, Red Light Cameras and other dangers. To do so, the detector uses a pre-installed GPS database that can be upgraded for free.

With the additional Laser- and Radar Modules, the device can detect any kind of speed trap, in this way ensuring the best protection for the driver. These products also support the stealth installation, as the communication cable that connects the KIYO GPS U1 with these modules comes with a LED indicator and an extra speaker socket.

2. OPERATION OF THE DEVICE

After igniting the engine, the device powers on and starts connecting to the GPS satellites. A short sound signal indicates the successful connection and that the device is active. When the vehicle is stopped, the detector shows the current time and when it is moving, the current speed is displayed. When a camera is detected, the device signals to the driver in the selected language and displays the current distance to the speed trap..



The driver can add new “Danger Zones” to the database of the device, for example, new speed camera locations or crossroads that the driver found particularly dangerous.

With the additional Radar- and Laser detector modules, the KIYO GPS U1 can detect mobile speed traps as well. These modules can also be hidden into the different compartments of the vehicle.

The KIYO GPS U1 supports the stealth installation, which means that it can be installed into- or under the dashboard. In such cases, the optional GPS antenna ensures the stable connection to the satellites.

If the device is installed under-or behind the dashboard, but it is not loud enough, the additional speaker and the communication cable can increase the volume.

The device can be completely hidden into- or under the dashboard, because the LED indicator of the communication cable and the sound alarms together give perfect audio-visual warnings to the driver.

3. APPLICABLE LAW

The 3. § (3) of the 2012.09.01 Hungarian Highway Code states: “It is forbidden to prevent, disturb or block the speed limit enforcement of the appropriately empowered authorities; devices that can predict such measurements are NOT included”.

The device merely gives warnings to the driver in order to avoid speeding, but it does not block, disturb or interfere with the operation of the cameras in any way. Obey the speed limits at all times and always drive in accordance with the road and weather conditions! Check the local laws regarding the product, before using it abroad!

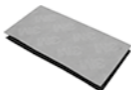
4. INSTALLATION

a) Accessories

Central Unit



Velcro tape



Cigarette Lighter
Power Cable
(with a spare fuse)



USB cable



User Manual



Optional accessories

Radar Detector
Module



GPS receiver



Additional
speaker



Communication
cable



Laser Module that can be installed into the license plate



b) Finding the perfect location for the device

For the best efficiency, ensure that the logoed side of the device has a clear view to the sky. Be warned that metallic parts might interfere with the connection between the Detector and the satellites, therefore make sure that there are no such parts above the device. Do not place the device where it may limit the driver's view or where it can cause injuries upon sudden braking.

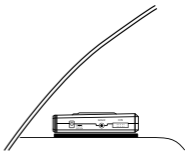
If you wish to place the device below the dashboard or into certain dashboard compartments, the separately purchasable GPS receiver will ensure the connection between the satellites and the device.

WARNING! If your vehicle's windscreen is metalized, the detector can only function properly with the optional GPS receiver, because the metallic components of the windscreen may interfere with the connection between the detector and the satellites.

c) Mounting options

Mounting on windscreen

- Locate a suitable mounting location and clear that spot thoroughly.
- Remove the protector foil from the Velcro tape and attach it to the device.
- Remove the protector foil from the Velcro tape attached to the device and mount the equipment on the selected and cleaned surface
- Connect the device and the cigarette lighter socket via the power cable.



Stealth installation

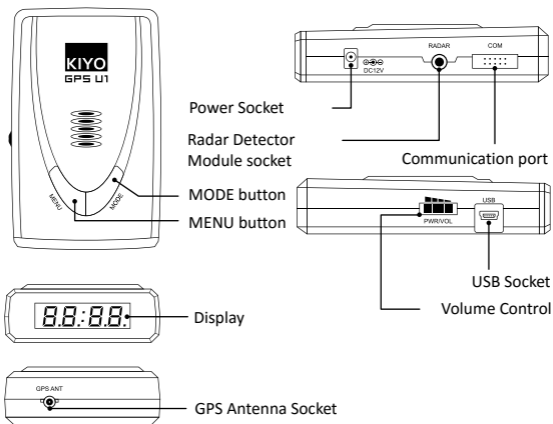
Because the device displays the threat and gives a voice signal in the selected language at the same time, it may be installed into hidden compartments. There are many places where it can be hidden, for example, in the glove-box, in the car's center console, into the compartment of the armrest, or even below the dashboard. After locating the given spot, follow the steps of the "Mounting to dashboard" section.

In case of a stealth installation, a GPS receiver is also necessary to ensure the connection between the GPS Detector and the satellites. For the best efficiency, the receivers should be placed to the lower part of the windscreen. If the windscreen is metalized, the receivers should be installed into the front bumpers.

d) Setting the device up

Connect the device to the vehicle's cigarette lighter socket (**DC 12-24 V**) via the cigarette lighter power cable. If this socket is connected to a constant current, the Detector will function when the car is not moving. However, in this case, the device will drain the battery in time, therefore, after use, you should turn the equipment off. If the socket is connected to the ignition circuit, the Detector will turn off when the ignition ceases, therefore it will not drain the battery

The additional radar module can be connected into the **RADAR** socket. With this module, the device can detect fixed- and mobile radar-based speed traps at the same time.



The additional communication cable can be connected into the **COM** socket. This cable connects the device with the optional laser module, which makes it able to detect laser-based speed traps as well. The device can be completely hidden under the dashboard, as the LED indicator and the sound alarms give perfect audio-visual warnings to the driver.

Once the laser module is connected, the warnings will come from the speaker of the GPS unit the LED indicator and from the display of the device. If the device is hidden under the dashboard and it is not loud enough, the optional loudspeaker can greatly enhance the volume of the alarms.

The external GPS antenna can be connected into the **GPS ANT** socket, which is essential when the control unit is stealth installed or if the windshield is metallised and blocks the GPS signals. In the latter case, the external GPS antenna can be installed behind the front bumper as well.

With the **PWR/VOL** knob, you can adjust the volume and turn the device off.

With the **USB** cable that comes with the device, you can update the software version, the database and the language packs of the GPS. Updates and instructions are available on the official website of the manufacturer.

e) Turning the Detector on

The device turns on when igniting the engine and starts searching for the connection with the GPS satellites. This $\mathcal{S} r \mathcal{C} h$ is displayed on the screen of the device, once it is connected, the inscription will disappear and the device is operational. When the vehicle is stopped, the detector shows the current time and when it is moving, the current speed is displayed. When a camera is detected, the device signals to the driver in the selected language and displays the current distance to the speed trap

The time for finding the GPS signals for the first time may vary depending on weather conditions, like the humidity of the air and the temperature. In cities, signals reflected from certain objects may also extend the searching time.

Upon driving in tunnels or near tall buildings, the device may lose the connection with the satellites and display the $\mathcal{S} r \mathcal{C} h$ text again, but it will reconnect in time.

WARNING! Without GPS connection, most of the device's functions are disabled.

5. USE OF THE GPS DETECTOR

a) Controls of the GPS Detector

MENU button

- One short press:
entering into the first menu of the settings.
- Every following short press:
jumping to the next setting in the menu.
- After 10 seconds of inaction, the device will exit from the settings automatically.

MODE button

1) One short press:

With a Radar Module connected, one short press will turn the detection of the K-band on- or off.

2) Adding/deleting user coordinates

- While driving (above 10 km/h (6.21 mph) and with an active GPS connection) press the MODE button to add your current position to your User Coordinates. These points can be, for example, new speed camera locations, that were not in the database before. The device will state the saving of the new coordinate in the selected language. The maximum number of User Coordinates is 50.

- A previously added User Coordinate can be deleted in two ways. The first option is when you are closing to the saved coordinate, wait until the device warns you and then press the MODE button to remove the given coordinate. The device will state if the coordinate had been successfully removed. This function works only with active GPS connection and above 10 km/h (6.21 mph). All of the saved User Coordinates can be deleted in the FACTORY RESET menu.

3) Enabling and disabling functions in Settings.

4) By pressing and holding the MODE button for 4 seconds, the Radar Detector module can be turned on or off. A displayed text and a beeping sound indicates the activation and deactivation.

b) Functions of the GPS Detector

The different functions of the GPS detector can be modified in the menu system, with the MENU and MODE buttons.

WARNING!

Upon some software updates, certain points of the menu system may change. For the proper use of the device, always use the manual from our homepage.

c) Functions of the GPS Detector

1 Smart Radar Mute (mute based on speed) (default: 50)

The Radar Smart Mute function reduces the number of false alarms, if a Radar Detector Module is connected to the GPS Detector. With active GPS connection, the device will only give warnings when the driver goes faster than the previously set speed limit.

Display	Function
b 10 - b 100	Speed limit: 10-100 km/h (6,21-62,14 mph)
b o F	Turing the Smart Mute function off.
b c ,	City mode: reduced radar signal detection.

2 Smart Laser Mute (Default: OFF)

The Smart Laser Mute function reduces the number of false alarms, if a Laser Detector Module is connected to the GPS Detector. With active GPS connection, the device will only give warnings when the driver goes faster than the previously set speed limit.

Display	Function
c 10 - c 100	Speed limit: 10-100 km/h (6,21-62,14 mph)
c o F	Turing the Smart Mute function off.

3 Speeding alarm (Default: ON)

The GPS detector monitors the speed of the vehicle when it is approaching a speed trap. When this function is enabled, the device will automatically give warnings in case of speeding, even if the driver exceeds the limit with only 1 km/h. In this menu, you can enable or disable this function, furthermore, you can set the minimal limit after which the device will give the warnings.

Display	Function
0 OF	Speeding alarm: OFF
0 ON	Speeding alarm above +1 km/h
0 5 - 0 10	Speeding alarm above +5 or +10 km/h

4 4 Setting GMT (default: +1)

The time zone is not updated automatically upon changing to or from Daylight Saving Time; the current time must be adjusted manually. Hungarian time settings: Standard Time: GMT +1; Daylight Saving Time: GMT +2.

Display	Function
Gnnt	Displaying GMT
- 12 és 12 között	Setting Time Zones

5 Database of the Fixed Speed Camera locations (Default: ON)

The database contains the locations of the fixed speed cameras and Red Light Cameras, including the Hungarian VÉDA gate system as well.

Display	Function
d lon	Indicating Fixed Speed Cameras: ON
d lof	Indicating Fixed Speed Cameras: OFF

6 Average speed check zone database (Default: ON)

The database contains the locations of average speed cameras and section cameras.

Display	Function
d2.on	Indicating Section Cameras: ON
d2.of	Indicating Section Cameras: OFF

7 Red Light Camera database (Default:ON)

The database contains the locations of Red Light Cameras, Bus Lane Cameras and Surveillance Cameras.

Display	Function
d3.0n	Indicating Red Light Cameras: ON
d3.0F	Indicating Red Light Cameras: OFF

8 Dangerous zones database (Default: ON)

The database contains the locations of dangerous crossroads, rail crossings, etc.

Display	Function
d4.0n	Indicating Dangerous Zones: ON
d4.0F	Indicating Dangerous Zones: OFF

9 SRA – Smart Radar Activation (Default: ON)

By enabling, the number of false alarms can be reduced, because the device will only warn to speed cameras that are saved in the database

Display	Function
d5.0n	Smart Radar Activation: ON
d5.0F	Smart Radar Activation: OFF

10 SLM – Smart Laser Mute (Default: OFF)

The Smart Laser Mute function reduces the number of false alarms, if a Laser Detector Module is connected to the GPS Detector. With active GPS connection, the device will only give warnings when the driver goes faster than the previously set speed limit.

Display	Function
d6.0n	Smart Laser Mute: ON
d6.0F	Smart Laser Mute: OFF

11 HU-GO Electronic Toll System database (Default: ON)

The database contains the locations of the Hungarian HU-GO electronic toll system gates.

Display	Function
d 7.0n	Indicating HU-GO toll gates: ON
d 7.0F	Indicating HU-GO toll gates: OFF

12 Displaying average speed

Displays the average speed measured since turning the device on.

Display	Function
E 1 - E 999	Átlagsebesség kijelzése.

13 Displaying maximal speed

Displaying the maximal speed measured since the latest update of the device.

Display	Function
F 1 - F 999	Displaying maximal speed.

14 Distance Alert (Default: 500m)

Recommended: 750m on freeways, 250m in cities and 500m in case of mixed use.

Display	Function
d 15t	Displaying Distance Alert menu.
250 - 750	Setting Distance Alert

15 Changing unit of speed (Default: km/h)

In this menu, you can change the unit of speed between km/h and mph

Display	Function
H 1	Changing unit of speed to km/h.
H 2	Changing unit of speed to mph.

16 Key sound (Default: ON)

Sound of the keys can be turned on or off.

Display	Function
<i>i oN</i>	Key sounds: ON
<i>i oF</i>	Key sounds: OFF

17 Detecting X-band (Default: OFF)

Here, you can turn on or off the function, whether the attachable Radar Detector module should detect the X-band or not.

Display	Function
<i>r 1oN</i>	X-band: ON
<i>r 1oF</i>	X-band: OFF

18 Detecting K-band (Default: OFF)

Here, you can turn on or off the function, whether the attachable Radar Detector module should detect the K-band or not.

Display	Function
<i>r 2oN</i>	K-band: ON
<i>r 2oF</i>	K-band: OFF

19 Detecting KA-band (Default: ON)

Here, you can turn on or off the function, whether the attachable Radar Detector module should detect the Ka-band or not.

Display	Function
<i>r 3oN</i>	Ka-band: ON
<i>r 3oF</i>	Ka-band: OFF

20 Monitoring external laser module (Default: OFF)

If you are using an external laser module, this function must be enabled, so that the connection between the GPS detector and the module can be established. If the external module is turned off, malfunctions or the connection ceases for any reason, the GPS detector will send a continuous alarm.

Display	Function
<i>L r. o n</i>	Monitoring external laser module: ON
<i>L r. o f</i>	Monitoring external laser module: OFF

21 21 Boot Tone (Default: OFF)

Here, you can turn on or off the function, that upon turning on, the device may greet you in the selected language or not.

Display	Function
<i>b t. o n</i>	Boot Tone: ON
<i>b t. o f</i>	Boot Tone: OFF

22 Software version

In this menu, you can check the software version number of the device.

Display	Function
<i>S 150</i>	Displaying software version number.

23 Database version

In this menu, you can check the database version number of the device.

Display	Function
<i>1208</i>	Displaying database version number.

24 User Coordinates

In this menu, you can check the saved User Coordinates.

Display	Function
U 01-U 50	Displaying Used Coordinates from 1 to 50, with GPS coordinates.

25 Factory Reset

With this option, all of the User Coordinates will be deleted and the default settings will be restored. The process can be started with pressing the MODE button, then a short beeping sound and the *r E S E* text shows that the process has started. After restoring the default settings, the device will exit from the settings.

Display	Function
r E S E	Deleting User Coordinates and restoring default settings

AUDIO AND VISUAL SIGNALS

	DISPLAY	LED	DESCRIPTION	SOUND
TURNING ON				
1	Srch	Flashing yellow light	Searching for GPS signal	GPS Detector activated
WHILE DRIVING (IF THERE ARE NO OTHER SIGNALS DISPLAYED)				
2	130	Continuous green light	Current Speed	No sound signal
IN CASE OF STATIONARY CAR (IF THERE ARE NO OTHER SIGNALS DISPLAYED)				
3	12:00	Continuous green light	GPS time	No sound signal
APPROACHING TO FIXED SPEED CAMERA (BELOW SPEED LIMIT)				
4	-200	Continuous yellow light	Remaining distance	Warning! Fixed Camera ahead!
APPROACHING AVERAGE SPEED CHECK ZONE				
5	-200	Flashing yellow-red light	Remaining distance	Slow down, Fixed Camera ahead!
APPROACHING TO RED LIGHT CAMERA				
6	-200	Continuous yellow light	Remaining distance	"Warning! Average Speed Check Zone ahead!"
WARNING! RED LIGHT CAMERA AHEAD!				
7	-200	Continuous yellow light	Remaining distance	Warning! Red Light Camera ahead!

	DISPLAY	LED	DESCRIPTION	SOUND
APPROACHING TO DANGEROUS ZONE				
8	-200	Continuous yellow light	Remaining distance	Warning! Dangerous Location ahead.
APPROACHING TO USER POINT				
9	U 01	Continuous yellow light	User Point number	Warning, User Point ahead!
APPROACHING TO TOLL GATE				
10	-200	Continuous yellow light	Remaining distance	"Toll Gate ahead!"

6. SOFTWARE UPDATE

With the help of a computer and the USB cable, the software, coordinate database and the language packages of the device can be updated for free. The latest updates, guides and user manuals can be downloaded from the official website.

7. SPECIFICATIONS

- **Power supply** DC 12 V ~ 15 V
- **Power consumption:** Max 3.8 W (without external devices)
- **GPS modul:** U-blox chipset (ver.7)
- **Memory:** 64 MBit
- **Size:** 99 x 62 x 23 mm
- **Weight:** 85 g (only the device)

ATTACHING THE RADAR DETECTOR MODULE

(Additional equipment, the basic package does not include it)



1. PURPOSE OF THE ATTACHABLE RADAR DETECTOR MODULE

The purpose of the Radar Detector Module is to increase the effectiveness of the GPS Detector, by detecting the mobile radar speed traps. The two device together help the driver noticing the traffic dangers to ensure the safe driving.

2. OPERATION OF THE RADAR DETECTOR MODULE

The Radar Detector is turned on upon ignition, alongside with the GPS Detector. When the Radar Detector identifies a radar signal, the GPS Detector warns the driver in the selected language, displays the type of the signal (from 1 to 7) and indicates the distance with a beeping sound. The more frequent the beeping sound, the closer the speed trap is.

If the Smart Mute option is enabled, the device gives warning only if the driver is overspeeding.

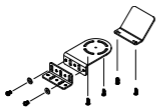
By enabling the Smart Radar Activation feature, the number of false alarms can be decreased, because the device will only signal upon

closing on a speed trap that is in the GPS database. By enabling the Smart Radar Activation feature, the number of false alarms can be decreased, because the device will only signal upon closing on a speed trap that is in the GPS database. **This function can only be used in Hungary!**

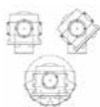
3. INSTALLATION

a) Accessories of the Radar Detector Module

Mounting brackets, screws

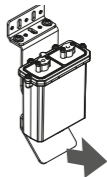
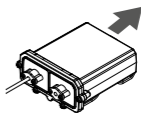


Positioning the module



b) Fastening the device

- Remove the bumper lattice and extensions or simply remove the whole bumper from the car. Choose an appropriate place for the device behind the bumper. Ensure that the device can be placed there horizontally with its sensor facing forward.
- If the horizontal positioning is unavailable because of the lack of space, use the bracket to fix the device vertically. In this case, use the deflector to ensure that the radar signals are received horizontally by the detector.



- After deciding between the horizontal or vertical placement, screw the bracket together (with or without the deflector), then mount the device to the bracket. The device can be placed into the lattice of the front bumper as well, because the detection range is 180°.
- Metallic elements may disturb the radar detection, therefore if the front bumper is made of metal, the detector should be placed into the grille.

c) Setting the device up

- Connect the jack plug of the Radar Detector module into the OPT socket of the GPS Detector.
- By pressing and holding the MODE button for 4 seconds, the Radar Detector Module can be turned on or off, which is indicated with a displayed text and a beeping sound.



4. USE OF THE RADAR DETECTOR MODULE

After connecting the module to the GPS Detector, the device is ready to use.

WARNING!

The Radar Detector Module is only functional with the GPS Detector.

When the Radar Detector identifies a radar signal, the GPS Detector warns the driver in the selected language; displays the type of the signal (from 1 to 7) and indicates the distance with a beeping sound. The more frequent the beeping sound, the closer the speed trap is.

If the Smart Mute option is enabled on the GPS Detector, the device gives warning only if the driver is overspeeding.

By enabling the Smart Radar Activation, the number of false alarms can be decreased, because the device will only signal upon closing on a speed trap that is in the GPS database.

WARNING!

This feature is only available in Hungary! In other countries turn the SRA – Smart Radar Activation function off!

5. SPECIFICATIONS

Power supply: DC 12 V ~ 15 V

Antenna: Linear polarization

Sensor: Dual Conversion Superheterodyne

Size: 84 x 82 x 40 mm

Weight: 150 g (the device only)

Cable length: 4 m

Frequency ranges:

X-band: 10.525 GHz \pm 50 MHz

K-band: 24.150 GHz \pm 50 MHz

Ka-band: 34.0 GHz, 34.3 GHz, 34.7 GHz, 35.5 GHz

CONNECTING THE GPS DETECTOR TO THE EXTERNAL LASER MODULE

(additional equipment, the basic package does not contain it)



1. PURPOSE OF THE LASER MODULE

With the external Laser Module, the GPS detector will be able to detect - in some cases even jam - mobile laser-based speed traps and fixed cameras as well. The warnings of the two equipment together make the driving conditions much safer. The laser module can be installed into the frame of the license plate holder.

2. OPERATION OF THE LASER MODULE

Numerous types of Laser Modules can be connected to the GPS detector, therefore always consult with the user manual of the given module if needed. In the followings, we will describe the special signals of the GPS detector, when a laser module is connected to it.

WARNING! Upon some software updates, certain points of the menu system may change. For the proper use of the device, always use the manual from our homepage.

3. ACTIVATING THE LASER MODULE

After installing a compatible external laser module (based on the instructions of that given equipment's user manual), connect one end of the communication cable into the COM socket of the GPS detector, then connect the other end into the central unit of the laser module.

If the laser module has been installed correctly and it is connected to a power supply, the cigar lighter power cable of the GPS detector will not be needed, as it will be powered by the laser module itself. For the best efficiency of some functions (SLM – Smart Laser Mute, Speeding alarm), remove the speaker of the laser module (if there is one), because the audio-visual warnings will come from the GPS detector itself.

The LED indicators of the laser module will not be needed, as the LED of the communication cable itself will show the warnings.

After successfully connecting devices together and into a power supply, the “Monitoring external laser module” function must be enabled in the menu system of the detector.

With the “Monitoring external laser module” function enabled, the GPS detector will give a “No connection with the external module” warning in the following cases: the connection between the devices is not installed correctly; the communication cable was disconnected from one of the devices; the laser module is offline; the laser module malfunctioning or crashed.

If the devices are correctly connected, after initialization the GPS detector will state the chosen state of the laser module (active mode, passive mode, parking assist mode)

4. SIGNALS OF THE LASER MODULE

Modes:

If the devices are correctly connected, after initialization the GPS detector will state the chosen state of the laser module. The available modes are the following: „active“, „passive“ and after some time of inactivity, „parking assist“ mode. Continuous green light will indicate the successful GPS connection; the flashing yellow LED means that the device is searching for the GPS connection. The laser module will operate without established GPS connection.

The different functions of the GPS detector (Speeding alert, SLM – Smart Laser Mute) will only mute the sound of the alarms, the LED indicator and the display of the GPS detector will continue to give warnings.

Mode signals:

DISPLAY	SOUND	LED
<i>nnA</i>	Active mode	green or yellow
<i>nnP</i>	Passive mode	green or yellow
<i>nnoo</i>	parking assist enabled	green or yellow

Operation warnings:

If the „Monitoring external laser module” function is enabled, the GPS detector will monitor the battery power and the connection between the external module and the sensors. If the connection is disrupted, the device will notify the driver of the current problem.

DISPLAY	SOUND	LED
	No connection with the external module	short red signal
<i>uu.b1</i>	Low battery power	continuous red signal
<i>uu.co</i>	No sensor connected	continuous red signal
<i>FRF 1</i>	Frontal 1 sensor malfunction	short red signal
<i>FRF 2</i>	Frontal 2 sensor malfunction	short red signal
<i>FRF 3</i>	Frontal 3 sensor malfunction	short red signal
<i>FRF 4</i>	Frontal 4 sensor malfunction	short red signal
<i>FR.r 1</i>	Rear 1 sensor malfunction	short red signal
<i>FR.r 2</i>	Rear 2 sensor malfunction	short red signal

DISPLAY	SOUND	LED
<i>F R r 3</i>	Rear 3 sensor malfunction	short red signal
<i>F R r 4</i>	Rear 4 sensor malfunction	short red signal

Alarms

DISPLAY	SOUND	LED
<i>u u l F</i>	Frontal laser detection	red - blue
<i>u u l r</i>	Rear laser detection	red - blue
<i>u u P F</i>	Obstacle ahead	Flashing yellow
<i>u u P r</i>	Obstacle behind	Flashing yellow

Updating the software of the laser module

The software of the laser module is updated separately than the GPS detector's. To update the module's software you will need an USB pendrive. The GPS detector will notify the driver to the necessary updates of the module as well.

DISPLAY	SOUND	LED
<i>U P d t</i>	Update in progress (do not turn the device off!)	rapid flashing red light
<i>U P d t</i>	Successful update (turn the device off and remove the pendrive)	continuous red light
<i>F 2 . 1</i>	Unsuccessful update or no update file on the pendrive	slow flashing red light

NOTES

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