

NOVUS DELTA



NOVUS
DELTA

www.novusgps.com

Manufactured under license by: GPS Location and Timing Ltd.
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USER GUIDE

NOVUS DELTA

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Description	Novus Delta
Part Number	08-100-001-100
Helpline Number	0845 6590959
Support email address	support@novusgps.com



Novus Delta Unit



Car Power Lead



USB Cable



Magnetic Mount



User Manual

We would like to draw specifically to you attention that we will not be liable in any way in respect of:

- 1 The failure by the user of the speed camera detector to drive safely and in accordance with all road traffic laws and regulations;
- 2 The failure by the user of the speed camera detector to install and use the speed camera detector in accordance without instructions; and
- 3 The speed camera detector failing to warn the driver of mobile speed cameras and/or fixed speed cameras.

ALL WARRANTIES, CONDITIONS AND OTHER TERMS IMPLIED BY STATUTE OR COMMON LAW (SAVE FOR CONDITIONS IMPLIED BY SECTION 12 OF THE SALE OF GOODS ACT 1979) ARE TO THE FULLEST EXTENT PERMITTED BY LAW EXCLUDED FROM ANY CONTRACT BETWEEN US, PROVIDED THAT NOTHING EXCLUDES OR LIMITS OUR LIABILITY FOR DEATH OR PERSONAL INJURY CAUSED BY OUR NEGLIGENCE OR FRAUDULENT MISREPRESENTATION.

WE WILL FURTHER NOT BE LIABLE FOR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE (WHETHER FOR LOSS OR BUSINESS OR OTHERWISE) COSTS, EXPENSES OR OTHER CLAIMS FOR CONSEQUENTIAL WHATSOEVER, WHICH ARISE OUT OF OR IN CONNECTION WITH THE USE OF THE SPEED CAMERA DETECTOR.

What is the warranty covers

The Novus Delta Unit has 2 years Manufacturer's Warranty. This warrants the hardware will be free from defects in workmanship and materials under normal use for a period of two (2) years from the date that the hardware was purchased. During the warranty period the hardware will be repaired or replaced at the company's choice without charge to you or for either parts or labour.

What the warranty does not cover

The warranty does not apply to normal wear and tear, will not apply if the hardware is opened or repaired by person not authorised by us and does not cover repair or replacement of any hardware or part thereof damaged by: misuse, liquids, proximity or exposure to excessive heat and accident, non-compliance with the unit's operation instructions, neglect and misapplication. The warranty does not cover physical damage to the surface of the hardware. If the unit develops a fault due to neglect or accidental damage or the warranty period has expired there may be a charge to repair the unit.

Damage to In-Car Power Leads is also not covered by warranty. Loss of the 2 Amp fuse, spring, or end cap of the In-Car Power Lead is not covered. Care should be taken if checking or replacing the fuse in the In-Car Power Lead. Magnetic Mounts removed from the dashboard may be difficult to re-attach to the dashboard or in another vehicle and will not be covered by warranty. Additional Magnetic Mounts can be purchased as required.

How to make a warranty claim

If you suspect that a fault has developed on your unit, please read the FAQ page at www.novusgps.com for information first. If you need additional assistance, please contact us and we will issue an RMA number (Returns Materials Authorisation) allowing the unit to be returned to us for testing or repair.

Important: We cannot accept equipment returned without an RMA number

Global Positioning System

The Global Positioning System (GPS) provides location and timing information using a satellite-based system.

The system is operated and controlled solely by the Government of the United States of America, who are responsible for it's availability and accuracy. Novus Systems Ltd. cannot accept any liability for changes to GPS accuracy and availability, or in environmental conditions, which may impact upon the operation of your Novus Delta product.

Specifications

Novus Delta Unit

Input Voltage: 9V – 24 V dc.

Current Consumption: 250 mA
MAX.

Speaker Output: 0.3W.

Operating Temp: -10C - +70C

Dimensions: 102mm(W) x 67mm(D)
x 22mm(H)

Weight: 90g

Cigar Lighter Charger

Input Voltage: 9V – 24V

Capacity: 250V, 2A (Fused)

GPS Engine

Sirf Star III

Frequency: L1 (1575.42MHZ)

Channel: 20 Channels

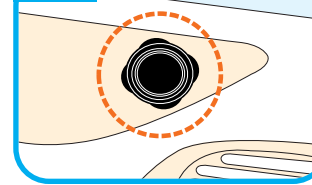
Output Format GPS Data: NMEA

0183; RS232, 9600 bps



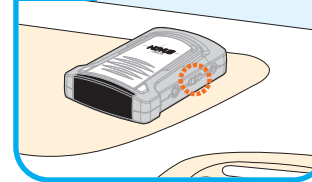
Installation

Step 1



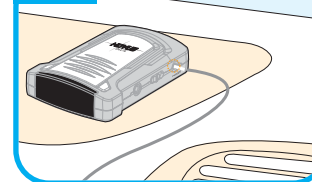
Remove the tape under the magnetic mount and attach on the dashboard of the vehicle. Location of the magnetic mount is important. Position it in order that Novus Delta has visibility of the sky.
Warning: Do not mount on airbags.

Step 2



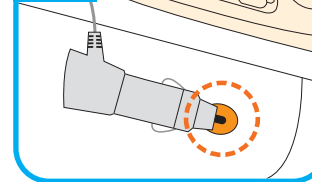
Place the Novus Delta unit on the magnetic mount. Select the operating mode either CAM or NORMAL.
CAM mode: Fixed, Mobile* & Red Light Cameras .
NORMAL mode: Fixed, Mobile** & Red Light Cameras.

Step 3



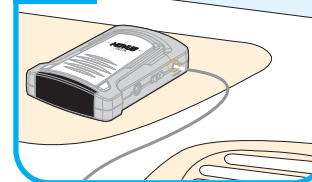
Connect the car power lead to the POWER SOCKET on the Novus Delta unit.

Step 4



Connect the cigar plug into the vehicle cigar lighter socket.

Step 5



Adjust the position of the Novus Delta unit so that the display is visible to the driver.

* NO overspeed warning in mobile sites.

** Overspeed warning in mobile sites.

The Novus Delta



Power socket

Used to provide power to the unit.



Mode selection switch

This switch allows the user to select the operating mode of the Novus Delta unit.



USER button

This button allows recording and deletion of user defined positions.
(See pages 11&12 for details).



Data download port

Used to download the latest database information from a PC connected to the internet. Use the enclosed USB download cable.



LED display

When driving normally the LED display shows the current speed of the vehicle. When approaching a "detection zone", the LED display indicates the speed limit at fixed camera sites together with the distance to the speed camera.



Volume switch

For adjusting the volume as required.



MENU button

This button displays a range of functions and data on the LED display.
(See page 12 for details)

Operating Instructions

1) Installation and power

Insert the power connector of the Car Power lead into the cigar lighter socket and the mini jack into the Novus Delta unit in the socket marked "Power".

2) Mode Selection

After supplying power to the Novus Delta, switch to either CAM or NORMAL mode by using the slide switch on the side of the unit. NORMAL is the safe driving mode and provides 'reduce speed' warnings when overspeed i.e. over 5% mph of the speed limit within 'possible mobile camera site' locations. In this mode the unit also gives hourly time checks and two hourly alerts.

CAM is the camera detection mode and will not provide 'reduce speed' warnings in 'possible mobile camera' locations.

D/L is the "Download position" and is to be used with the download cable supplied when updating the database to the unit.

3) Volume control

The volume of the voice warning and warning tones can be adjusted by the volume control.

4) MENU button

Allows various functions to be displayed.

5) USER button

Allows the user to add or remove their own positions within the Novus Delta unit.

General Announcements.

When the Novus Delta unit is switched on it will give an active chime and in 'Normal Mode' only it will announce "Fasten Seat Belt". It will flash the internal database version information in the display window, then show the current time. The unit will also begin to search for GPS satellites. If the vehicle is parked under cover this will extend the time taken to find satellites.

In 'Normal Mode' the Novus Delta unit will make a time announcement whilst flashing the time at the top of each hour. The time displayed will automatically adjust for British Summer Time and Greenwich Mean Time.

As a safety feature in 'Normal Mode' only the Novus Delta unit will make a voice announcement and flash the display after every two hours of continuous operation asking the driver to consider taking a rest.

The Novus Delta unit will not give the 'System active', 'Time check' or 'Two hour alert' announcements in 'CAM' mode.

Warnings of Fixed/Mobile camera sites.

The Novus Delta unit will warn of fixed or mobile camera sites in both 'NORMAL' or 'CAM' mode.

When the Novus Delta unit is tracking satellites it will display the current time when the vehicle is stationary and the current speed (mph) when the vehicle is moving. If the display does not indicate the vehicle speed, then the unit is not yet tracking sufficient satellites. This may be due to high rise buildings, or trees, etc, or it could be that the vehicle is fitted with a UV coated windscreen which blocks not only the Sun's UV rays, but GPS signals also. See Troubleshooting section for details.

If the Novus Delta unit does not display the vehicle speed after 5 to 10 minutes of operation then consider resetting the unit.

Drivers should be aware that the sites designated for fixed and mobile camera operation are chosen because of a history of accidents in the area. Care should be exercised in these areas regardless of the presence of a camera.

As a vehicle approaches a Fixed, Mobile, Red Light or SPECS (average speed over distance) site, the general principles of operation are the same. The Novus Delta unit will make an initial announcement indicating the type of site, the speed limit and the distance to the site ahead.

Operating Instructions

An indication of the distance to the site is given, typically for Fixed sites this will be 500 yards, however in some cases, due to road layout it is not possible to provide a 500 yard warning. Under these circumstances the warning will be issued as far from the camera as possible and a generic 'camera ahead' warning is given.

The speed limit for the road at the location of the camera site will be announced and flash on the display.

As the vehicle approaches the site the display will show the current speed of the vehicle on the right hand side of the display and a representation of the distance remaining to the site on the left hand side. Each segment of the distance remaining display represents approximately 100yds. When only two segments remain the Novus Delta unit will chime to indicate the close proximity of the site. If the vehicle is travelling in excess of the speed limit in close proximity to the camera site, then the Novus Delta unit will make an announcement advising that the driver should reduce speed. (Drivers should obey the posted speed limits in preference to the information provided by the Novus Delta unit).

Once the vehicle has passed the camera site, or if the driver takes an alternative route that avoids the camera site, then the unit will make an 'All Clear' chime and revert the display back to the current speed of the vehicle.

Adding/Deleting User positions.

Users may wish to make a record of a position as they are driving. If the USER button is pressed whilst the vehicle is in motion, the Novus Delta unit will store the current position and make an announcement that a 'User Position' has been saved. In future when the vehicle travels in the same direction as when the position was stored, then the driver is advised of the approaching location.

A user position may be deleted from memory, if the USER button is pressed within 10 seconds of a 'User Position' announcement being made.

Button Functions:

There are two buttons on the top of the Novus Delta unit; 'MENU' and 'USER'. The operation of the buttons depend upon whether or not the vehicle is moving.

Stationary Vehicle

Menu button

- | | |
|--------------------|---|
| Press once: | Displays the Date (mm:dd) |
| Press twice: | Displays the Trip distance (miles). Reset to zero when powered off |
| Press three times: | Displays the Average Speed for the Trip. Reset to zero when powered off |
| Press four times: | Displays the maximum speed for the Trip. Reset to zero when powered off |
| Press five times: | Displays the current number of GPS satellites tracked |
-

User button

- | | |
|-------------|---|
| Press once: | The unit will display and announce the current position as a Latitude and Longitude |
|-------------|---|
-

Each display is shown for 10 seconds, then the display reverts back to the current time.

Pressing and holding down the MENU button for 5 seconds will force the Novus Delta unit to restart. This should only be done if the Novus unit has been switched on for more than 5 minutes and does not display the current speed (or time if stationary).

Moving Vehicle

Menu Button

- | | |
|--------------------|--|
| Press once: | Press once: Displays the Speed and Directional Indicator |
| Press twice: | Displays the Bearing (Degrees) |
| Press three times: | Displays an average Height above sea level (Feet) |
-

User button

- | | |
|-------------|--|
| Press once: | Stores the current position as a 'User position' Up to 200 positions can be stored in this way. If the user button is pressed within 10 seconds of a 'User position' announcement, the Novus Delta will remove the current location from the user position list. |
|-------------|--|
-

Voice announcement & LED display

Classification	When	Tone	Announcement	LED Display
Start Up	Power on	D/C	Hello - Novus system Active (NMO)	Database version Date Time
Time Check	On the hour	None	GPS Time check at... O'Clock (NMO)	Time blinks three times
2 Hour Alert	Every 2 hours from power on	D/C	2 hour alert please consider taking a rest (NMO)	Time blinks three times
500 yard Fixed Speed Camera Warning	500 yards from speed camera	D/C	Warning speed camera 500 yards ahead limit ... miles per hour	Speed limit at camera location flashes for 8 seconds - then shows current speed with LED segment counting down to camera.
Generic distance Fixed Speed Camera Warning	Generic distance from speed camera (when 500 yard activation point is not practical)	D/C	Warning speed camera ahead limit ... miles per hour	Speed limit at camera location flashes for 8 seconds - then shows current speed with LED segment counting down to camera.
Fixed Speed Camera Warning	Driving above speed limit with 200 yards to camera location	D/C	Warning reduce speed	Shows current speed
Fixed Speed Camera Warning	Driving below speed limit with 200 yards to camera location	D/C	None	Shows current speed
Fixed Speed Camera Warning	When joining road at a junction after activation point but in path of camera	D/C	Warning speed camera ahead limit...miles per hour	Speed limit at camera position flashes for 8 seconds
500 yard Possible Mobile Speed Camera Site Warning	500 yards from mobile speed camera site	D/C	Warning possible mobile camera site 500 yards ahead (limit...miles per hour) [speed limit not always added here as the mobile site could cover more than one speed limit]	Speed limit at camera position flashes for 8 seconds If no speed limit entered will show current speed
Generic distance Possible Mobile Speed Camera Site Warning	Generic distance from speed camera (when 500 yard activation point is not practical - often on straight roads where 500 yard warning may not be sufficient.	D/C	Warning possible mobile camera site ahead (limit... miles per hour) [speed limit not always added here as the mobile site could cover more than one speed limit]	Speed limit at camera position flashes for 8 seconds If no speed limit entered will show current speed

D/C = Double Chime T/C = Triple Chime NMO = Normal Mode Only

NB. If travelling in a 'possible mobile site' above the speed limit the warning 'reduce speed' is NOT made when operating the Tin CAM mode.

Classification	When	Tone	Announcement	LED Display
500 Yard Red Light Camera Warning	500 yards from Red Light camera	D/C	Warning Red Light camera 500 Yards ahead limit...miles per hour [be aware some red light cameras now have a speed on green operation, also acting as speed cameras]	Speed limit at camera position flashes for 8 seconds - then shows current speed with LED segment counting down to camera.
Generic distance Red Light Camera Warning	Generic distance from Red Light camera (when 500 yard activation point is not practical)	D/C	Warning Red Light camera ahead limit...miles per hour [Red Light warnings work in same way as Fixed Cameras]	Speed limit at camera position flashes for 8 seconds - then shows current speed with LED segment counting down to camera.
All Clear	Passing All Cameras & Mobile Sites	T/C	None	
Saving a user input position	When pressing user button when mobile		User position logged	SAVE (Blinks)
Deleting a user position	When pressing user button in close proximity to pre-logged position		User position deleted	dEL (Blinks)
Changing Mode selection on slider switch	Changing to CAM position		Camera detection mode	
Changing Mode selection on slider switch	Changing to Normal position		Safe Driving Mode	
User Position	Passing a user set position		User Position Ahead	

D/C = Double Chime T/C = Triple Chime

Caution



1. When using Novus Delta for the first time the unit may require a warm up time of approximately 5 - 10 minutes.



2. Position Novus Delta system with a good view of the sky.



3. It should be remembered that satellite signals will be lost in tunnels underground car parks.



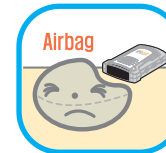
4. When you install Novus Delta in your vehicle, ensure that it is placed on the dashboard with a clear view of the sky through the windscreen.



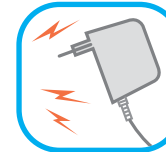
5. Remember that it takes a few seconds to re-acquire GPS signals after leaving a tunnel.



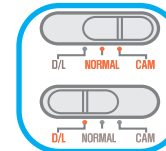
6. Avoid splashing unit with water or placing in areas of high humidity or in direct sunlight for long periods of time in the summer.



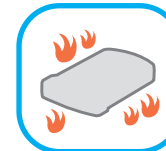
7. Place Novus Delta in the vehicle where it does not interfere with other controls in the vehicle.



8. Only use the in car power or USB lead supplied with the Novus Delta unit, failure to do so will invalidate the warranty.



9. When Novus Delta is operating in the vehicle the switch should be selected to either CAM or NORMAL mode. If updating the database the switch should be moved to D/L mode.



10. Do not attempt to open or modify the unit as this will invalidate the warranty.



11. The Novus Delta is ready for use, preloaded with a comprehensive database of camera positions. It is possible to update the database via a computer (with internet access) by visiting www.novusgps.com and following the download instructions.



12. All aspects of the product both hardware and software are licensed to GPS Location and Timing Ltd.

Problem

Action

Fails to power up

- 1 Check that the power lead is firmly plugged into the "POWER" socket & into the cigar lighter.
- 2 Check the internal fuse in the power cable. Replace the internal fuse with the spare one.
- 3 High temperature caused by direct sunlight can affect the normal operation of the Novus Delta (extremes of heat of greater than 85°C must be avoided).

No audible signal

- 1 Check the volume level.
- 2 Check the GPS signal.

Does not acquire GPS signal

- 1 Check the power lead.
- 2 Novus Delta does not have a clear view of the sky*
- 3 If driving without a clear view of the sky for a long period and the Novus Delta does not appear to operate normally, then, when next in a clear view remove and re-apply power.
- 4 Long tunnels, tall buildings, bridges or overhanging trees may cut out the GPS signal.
- 5 UV filtered windscreen. Some cars are fitted with UV filters on the windscreen, some times called Climate Comfort or Athermic windscreens. These windscreens also block GPS signals. It is quite easy to test for this. Simply hold the Novus Delta outside the car when stationary, or have your passenger do this in motion, and the Novus Delta will shortly acquire sufficient satellites. When sufficient satellites are acquired the colon in between the hours and minutes will begin to flash, or the speed will be indicated if in motion. If your car is fitted with a UV windscreen, in most cases there is a clear area around the rear view mirror. A simple screen mounting kit enables the Novus Delta unit to be mounted just above the rear view mirror which will give the unit sufficient view of the sky for excellent operation. A four metre cable is supplied in the kit which can be fitted around the windscreen, and traced neatly to the cigar lighter.

Incorrect operation

- 1 In a GPS shadow area.
- 2 Have not updated the Novus Delta with the latest database information.
- 3 Check that the mode select switch is select to either CAM or NORMAL.

Novus Delta is shipped with a comprehensive database installed.

If you wish to regularly update your Novus Delta unit, visit novusgps.com and follow the download instructions.

Technical Support

For any technical support problems please contact us either via email -

support@novusgps.com

or telephone **0845 659 0959**