



SISTEMI PER LA GESTIONE DEL TRAFFICO - TRAFFIC CONTROL SYSTEM



DOCUMENTATION OF TRAFFIC LIGHTS VIOLATIONS

TECHNICAL CHARACTERISTICS

The main innovation lies on the fact that VISTA RED is the system that makes the offense indisputable, making a real movie of the vehicle during the crossing intersection with red light (and not just some photo shoots): This is the key to not having claims representing an enormous expenditure of energy and time by the government.

Another key feature is the ability to fix detector at a variable distance between 10mt and 30mt. Often fixed distances are in unsuitable places: shop entrances, entrance housing, etc.. With VISTA RED the impact of environment is therefore significantly reduced.

VISTA RED is able to operate 24 hours on 24 without the help of "flash" and therefore not visible by road users in order to avoid skidding of the driver and vandalism;

VISTA RED performs automatic reading of the carcode and interfaces with the most common reporting system available today.

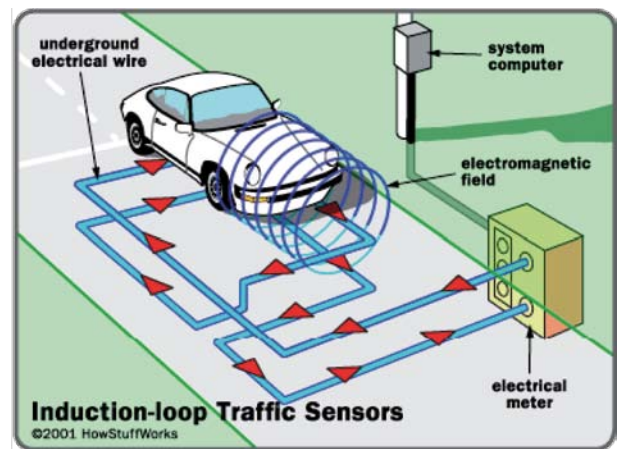
SYSTEM STRUCTURE

The Vista system is based on Red sophisticated technology, but conceptually very simple. The system consists of some essential elements:

One (or more) digital camera Panasonic Day / Night with SDII zoom, pan and auto-track.



Two (or more) inductive loop electromagnetic



The operation of the system begins with the inductive loop electromagnetic. There are different types of coils, which aim at the same purpose; those used in the Vista Resystem are double and allow detect a vehicle passing at that precise point, detecting and authenticating also the directionality (to avoid nuisance alarms, due, for example, a vehicle passing correctly opposite direction).

An electromagnetic induction coil in common systems consists of an electric cable, drowned in the asphalt of the road. The coils used in VistaRed consist of a double coil of wire capable to detect, in addition to the electromagnetic field, also the direction of passage.

These cables are hooked to a power source. Sending electric current through a wire, it generates a field magnetic. Placing the cable in a concentric direction, as in every electromagnet, it amplifies the field.

This sort of field involves not only the objects around the coil, but the transition itself. The magnetic field induces an electric voltage in the cable, which substantially alters the current flow through the circuit.

The intensity of this induction depends on the structure and composition the loop, changing the layout of the cables or using a different material conduction inductance is varied. The VistaRed system uses a circuit spiral that allows a perfect detection of the car and its direction.

SYSTEM APPROVED BY THE MINISTRY OF INFRASTRUCTURE AND TRANSPORT BY ORDER N.162 OF 23 FEBRUARY 2006



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One (or more) unit Command VR-CU1



The controller is the brains of the operation. It's cabled with cameras, the coils and the circuit of lights. The controller continuously monitors the signal of traffic lights and spire. If a vehicle passes over the spires and turns in the direction permitted, when the light is red, the unit activates the digital camera without starts recording movie. The camera, as well as start recording, monitors the vehicle and zooms the area where it is supposed to be the code of vehicle, collecting data and sending them immediately to the operations center, where the digital video recorder stores the entire event recorded (the movie of the entire offense). When the traffic light is green, the control unit ignores the spires and doesn't activate the cameras. The system will not "turn on" until it receives the signal that the light is red. If the vehicle is already in the middle of the intersection when the light becomes red, the system will not detect the offense (this is not a violation the rules of traffic).

The system VistaRed can wait a split second after the start of red light, to give the vehicle a "period of respite". When both coils are activated in rapid succession, the unit recognizes that a vehicle is crossing the intersection quickly.

If the vehicle activates the first loop, the control unit recognizes that it has stopped at the beginning of the intersection, without going through it. When a vehicle, enables both spires, after the engine turns red, the controller automatically starts the camera.

The movie begins by showing that the vehicle, which is beginning to cross the intersection, with the red light well to the fore. The Capturing images continuous recording of the event, until the vehicle has completely crossed the intersection.

Individual images are not detected but a continuing sequence movie which ensure the effective and complete certainty of the just happened event.

One (or more) VR-HD316 digital video recorders (central operational)



At the same event of infringement, the camera sends information to the digital video recorder located in central control, which records continuously on the resident hard disk, allowing preservation board and / or the network connection for downloading and storage drives external. To find complete documentation of the violation, the video gives some extra encrypted information on every single frame of the movie clip (the whole movie is not editable, but encrypted to ensure secure data):

Date

Time

Location of intersection

Direction

Number of camera



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One (or more) File Server VR-FS1 (Operations Center)



The file server VR-FS1 is directly associated with the video recorder Digital VR-HD316 and its main function is to transfer on himself, videotaped movies and pictures from VR-HD316 transcoding them from H3R format (compressed owner) to visible JPEG and BMP format. This operation is essential for the transmission of movies of filmed to the event processing infringements (VR-LPR / S) located at headquarters and that consequently will provide for the creation of the files will be verbalized.



One (or more) File Server VR-FS1 (Operations Center)

With all the information imprinted on each frame of the entire movie, the police force has everything he need for taking minutes.

However VistaRed has been implemented in some modules (Software 11/10) making it completely automated, without the need to employ any officer until issuance of the authorization and / or forwarding to the driver.

The software modules allow you to withdraw from usable digital video recorder movies alarms recorded. From each movie (which is an infringement of certain) are extrapolated individual frames that are subjected to recognition plate with conversion of the image data for the contextual subsequent management of databases and interfacing with software standards for the management of the records.

Red Vista comes with software for the recognition of license plates (FreeFlow) storing the frame and conversion image plate data. The 11/10 software handles the post event. The data plate is stored in a

database for preservation of historic and is managed for a comparison to specific software for connecting to the office, to search datas and the immediate and automatic compilation of the report with the inclusion of all necessary data.



One (or more) VR-LPR / C (Operations Center)

These software module are installed on personal computers, already being at operation centre. The form VR-LPR / C will be used by staff to the vision of the events and the next decision. The recorded data are only those relevant to actual infringements and can be downloaded as video or photos easily reproducible with printer for immediate shipment with the report fine.

The preservation of individual photographs, but, above all, the entire movie with pre and post alarm recording, can offer comprehensive documentation and absolutely reliable also against any liability claims. The system is completed by a further software module (Vista Report) dedicated to the issue of reports and management and usage statistics.

The ease of use and the ability to burn data, allow to maintain a historical retrospective that can be useful for any actual security problems.



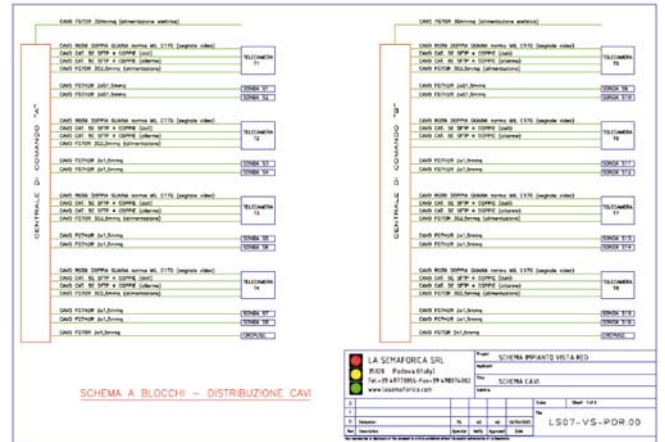
Full video analysis



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Selected photographs

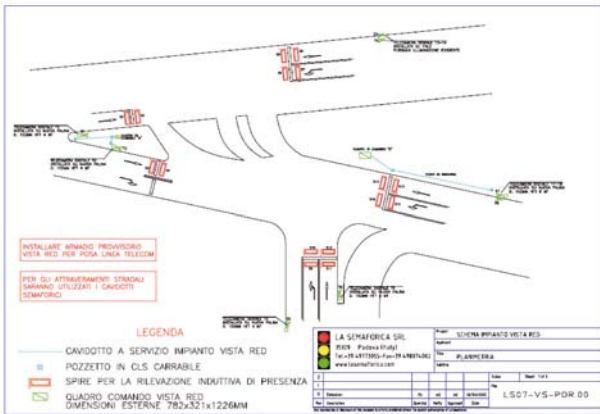


Operations Center

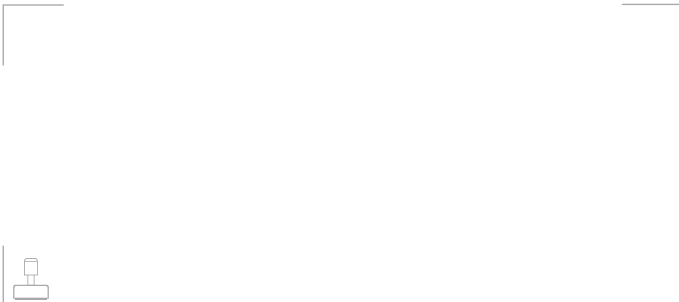
INSTALLATION PICTURES



SYSTEM DESIGN AND ARCHITECTURE



AUTHORIZED DISTRIBUTOR



LA SEMAFORICA SRL
Via Ponticello, 17
35129 Padova
Italy
www.lasemaforica.com

Tel. 049 773055 - Fax 049 8074002 - e-mail: info@lasemaforica.com

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