



UNIPAR SERVICES

SENTINEL

AUTOMATIC CAMERA SYSTEM

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INTRODUCTION

The Unipar static camera system comprises of a high quality day/night infrared sensitive camera, high capacity battery pack, a solid state **Digital Video Recorder**, vehicle detection radar and all control circuitry in a single small lightweight package.

The unit is easily configured using the supplied remote control with all the settings displayed clearly on the supplied 3.5-inch LCD monitor. The unit can be configured to record vehicles either toward or away over a selected speed (minimum 5 mph) as well as displaying a numeric location code up to 5 characters if required. The same remote control also controls all the functions of the DVR which can be used to play back any of the video files on site.

The recorded video file contains both the time and date as well actual live speeds at the instant they occur with the location in the bottom left of the screen.

By ejecting the standard SD card from the unit all the recorded video files can be played back on a computer using the software supplied.

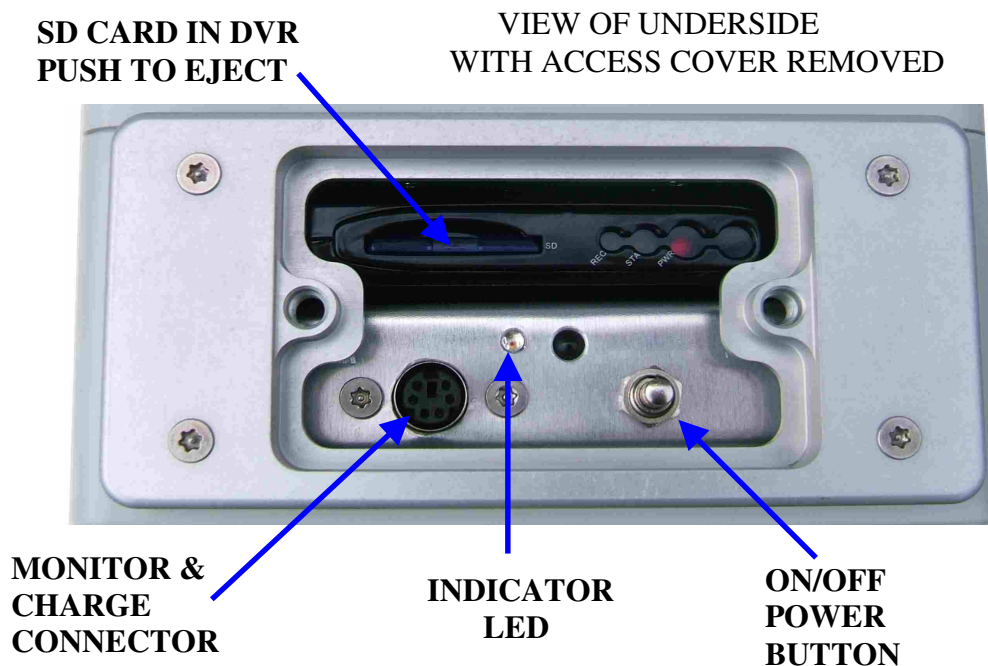


CONNECTIONS

All the connections are via the 6pin socket on the underside and are as follows:

Video out – The LCD monitor is plugged into the 6pin connector for viewing/changing the current settings and the sighting of the camera.

Charge input – With the unit switched off charge the internal battery pack with the battery charger supplied.



OPERATION

POWERING UP – Press in the alternate latching power button on the underside of the unit. The unit must have been previously off for it to now power up *providing there is sufficient battery voltage*. The indicator LED will now illuminate GREEN for approximately 10 seconds whilst the unit does a self-test and the current settings are displayed (connect the monitor to view/change if required). The LED state will then change from continuous GREEN to flashing GREEN every 5 seconds. This indicates the unit is ready to record as per the settings.

POWERING DOWN – With the unit on or in standby press in the power button. All LED indicators will switch off. Ensure any recording has finished first.

STANBY MODE - Keep the **MUTE** button on the remote control continually pressed for several seconds observing the red LED flashes as the remote control transmits. The led will suddenly change from flashing to continually on, at which point let go of the MUTE button as the unit is now in standby. The unit will now indicate it is in standby by flashing the red LED every several seconds. Care must be taken to let go of the MUTE button once in standby as the same button is used to power it up again.

POWERING UP FROM STANDBY – To wake the unit up from the standby mode press the **MUTE** button on the remote control and keep it pressed for several seconds observing the red LED flashes as the remote control transmits. After several seconds of flashing the LED will illuminate continually for 5 seconds whilst the current settings are displayed. Once the unit has finished displaying the current settings the LED will change from red to flashing green to indicate the unit is ready to record as per the settings.

LOW VOLTAGE INDICATOR – When the internal battery becomes too low (less than 11 volts) the unit goes into low power sleep mode to protect the battery from deep discharge. This is indicated by the LED flashing RED then GREEN every 10 seconds. The unit must be then switched off via the on/off switch on the underside and charged up.

CONFIRMING THE CURRENT SETTINGS – When the unit is first powered up the current over-speed, direction and location code settings are displayed. These can however be verified and changed if desired at any time by pressing and holding the **ENT** (enter) button) without the necessity for the unit to be switched off and on again.

ACCESS COVER - This provides a watertight cover to protect and conceal the connector and SD card.

THE LCD MONITOR

The camera system is supplied with a 3.5-inch portable LCD monitor so the camera can be aimed correctly and the operational settings for both the system and the DVR can be viewed. Refer to the operating manual enclosed with the monitor for charging and maintenance instructions.

ENTERING THE USER SETTINGS



CLEAR BACKGROUND IDENTIFIES SELECTED CHARACTER.

OVERSPEED, DIRECTION & LOCATION CODE ARE ALL SET USING THE REMOTE CONTROL.

REMOTE CONTROL BUTTONS

PRESS & HOLD THE ENT BUTTON TO DISPLAY CURRENT THRESHOLD SETTINGS.

PRESS & HOLD THE MUTE BUTTON FOR STANDBY/WAKE UP.



THE UP & DOWN ARROWS SELECT CHARACTERS 0 to 9

THE BACK & FWD ARROWS MOVE TO PREVIOUS OR NEXT POSITION.

► **FORWARD ARROW** – Advances onto the next character to change. The black background of the character is removed to identify which character has been selected.

◀ REVERSE ARROW – Goes back one step. The black background of the character is removed to identify which character has been selected.

▲ UP ARROW – Changes the character to the next one in the sequence i.e. if it was 1 it would now change to 2 and if pressed again change to 3 etc. The black background of the character is momentarily restored as it changes so it can be easily read.

▼ DOWN ARROW – Changes the character to the previous one in the sequence i.e. if it was 8 it would now change to 7 and if pressed again change to 6 etc. The black background of the character is momentarily restored as it changes.

OVERSPEED – The speed over which the unit will start to record (assuming it is above 5 mph and the direction is correct). The radar is factory set to respond to speeds 5 mph and above (can be changed on request).

DIRECTION – Either **TOWARDS** or **AWAY**. The unit will start to record if the vehicle is traveling in the correct direction and if it is over the speed setting.

LOCATION – This allows the user to add a location code to the recorded images of up to 5 characters. The characters are: [SPACE]0123456789

The characters all have a solid black background apart from the SPACE, which is totally clear. If less than 5 characters are required, enter a SPACE instead at the appropriate point. For example entering 3 numeric characters followed by 2 spaces will result in only the 3 numeric characters being displayed. Entering 5 spaces will result in no location being displayed at all.

These settings can be confirmed/displayed at any time pressing the ENTER button on the remote control and keeping it pressed for several seconds observing the red LED flashes as the remote control transmits. After several seconds the flashing red LED will change to permanent green at which point the settings will now be displayed. It is whilst these settings are being displayed that they can be changed.

Once the forward arrow has been pressed to advance onto any of the setting's characters the settings will remain permanently displayed until the forward arrow has been pressed enough times as to advance through all the character i.e. first through the over-speed and then the direction and finally all 5 characters of the location even if they are all spaces. The settings will then clear down after 5 seconds storing any changes displaying the location code in the bottom left-hand of the picture.

DATE & TIME – The data and time displayed in the top left hand corner of the picture is generated by the DVR and is set via the MENU button and following the onscreen instructions.

TAKING FOOTAGE

The Sentinel is supplied with expandable banding for quick and easy post mounting. To achieve the best results consideration must be made to the sighting of the Sentinel. Ideally the sentinel should be sighted so the vehicles are traveling as directly as possible towards or away from it. This ensures the vehicle remains in the picture for the maximum duration. Sighting the Sentinel at acute angles for example would result in the vehicle going across and out of the picture a lot quicker than if the vehicle was coming towards it where all the time it would be getting larger and clearer.

Use the monitor to target the Sentinel on the road. The vehicle speed is displayed live as it is detected assisting in the targeting of the vehicles.



A tripod option is also available if required for portable applications.

THE DVR (Digital Video Recorder)

This is controlled by the remote control and has been preset to record at the highest resolution for 10 second (a 5 second pre-event and a 5 second actual) these settings and more can be changed by pressing the **MENU** button and following the on screen instructions although the necessity to change them is unlikely. The unit has been configured activate for **ALARM MODE ON** and **ALARM INPUT N.O.** this should not be changed and if it does the unit will fail to record. In the event that it has been accidentally changed simply set it back to the correct settings. When **MENU** button is first pressed a pass-code is asked for. The default pass-code is 0000. This can be changed in the menu settings if required to stop any unauthorized change of the settings. Care must be taken to make a note of the new number if it is changed however.

REVIEWING ON SITE – Any footage recorded can be played back on site by pressing the **MODE** button. This plays back the last 10 second piece video footage as a continuous loop i.e. over and over again. To select the previous pieces of footage press the down arrow until the desired piece of footage has been selected. Use the up arrow to advance forward again if required. Use the fwd, rew, pause buttons as with a conventional DVD player. Pressing the MODE button again switches back to live video again.

REVIWING ON A COMPUTER – Once the SD card has been ejected, which should only be done with the unit powered down, the footage can be reviewed using the software supplied. Full instructions on the operation of the software are contained on the software CD supplied.



CHARGING

The unit is supplied with a battery charger. The charger has a charge indicator led that will change from red through to orange to eventually go green when fully charged. If the battery is deeply discharged it may take as long as 15 hours to fully recharge. Full charge instructions are enclosed with the charger.

The unit goes into a low power sleep mode when the internal battery becomes too low. This is indicated by the LED flashing RED then GREEN every 10 seconds which it will continue to do so as a reminder that *the unit must be then switched off via the on/off switch on the underside and charged up.*

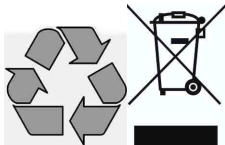
SPECIFICATIONS

Fixing -	Standard sign fix bracket. Tripod option.
Weight -	1.2kg
Dimensions -	130mm x 130mm x 95mm (excluding fixing bracket).
Housing -	IP 66
Camera -	Colour 480 TVL 0.1 Lux minimum illumination
SD card Capacity -	1GB (supplied) gives approximately 2 hours of video footage at the highest video quality and frame rate.
Radar type -	X Band directional radar – 10.525Ghz
Power -	Fixed internal 4300mAh NiMH (standard) Mains option 100-220VAC

FCC ID: YRQSEN1

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Please note: No changes or modifications should be made to the equipment. Any changes may void the users authority to operate the equipment.



**CONTAINS A RECHARGEABLE
NiMH BATTERY. MUST BE
RECYCLED OR DISPOSED OF
PROPERLY.**

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