

Dual-Vision

Installation and operating instructions v6.2



Main Features

Unlike other in-car recording systems, the Dual Vision™ Recorder from Brigade is used to record both video and audio data in a continuous loop fashion. If the vehicle is involved in an accident such as a collision, impact, and sudden acceleration related incident, this data is marked and stored. One may thereafter analyze the data to find its root cause by playing back the scenes of interest and where acceleration, vehicle speed, direction, and location are available for review. Added to the recording is vehicle speed and direction and GPS location.

Continuous recording

The video and audio data from the front and interior camera views is continuously recorded while the unit is powered. When the capacity of the SD Card has been reached, the older files are overwritten by the latest ones in a “round-robin”, first in, first out fashion.

Pre and post event recording

When impact or unusual acceleration or deceleration is detected by the built-in G-Sensor and has exceeded the preset limit or one activates the manual emergency record button, the recorded video data is locked-in and is erased only by an authorized party and by using a PC or laptop, accessing the SD card. Event data is recorded 1 minute before and 1 minute after. (Note: The User may set the pre-event time to either 1 minute, 2 minutes or 3 minutes of pre-event recording). This is done at the Unit set-up stage with the SD card inserted in a PC and the set up menu is selected. The next time the SD card is read by the unit, the unit's set up parameters will be uploaded into the recorder. As previously mentioned, stored event recording data in the SD card will not be erased by the unit, and where this must be done manually by the User.

Night view recording with Infra-Red Light

There are two IR (Infra-Red) Light modules available: one used with the stand-alone Dual Vision™ recorder, the other as part of the accessory tamper resistant housing, installed within the housing. The external unit allows one to adjust the output level of the IR auxiliary light to assist in recording nighttime views from the interior facing camera. The IR unit within the housing has an automatic adjustment.

Playback of video/audio data

The recorded data can be played back using the provided playback software which resides on the SD card. By removing the SD card and accessing the Player folder and double clicking on the “Player.exe” line starts the playback software.



Introduction

Brigade's Dual-Vision™ System allows recording of vehicle travel data and exterior/interior video. Mounted on the windshield, Dual-Vision's™ twin cameras capture wide-angle views of the forward exterior field of vision and the driver/passenger compartment. Privacy concerns may be addressed through several means, including disabling of interior audio recording. Data is recorded in a continuous loop, with oldest data erased by more recent video, however the compact system can hold at least 6-8 hours of data (based on standard 8GB card, greater storage is available) before any over-writing takes place. For protection of important events, the system is programmed to mark certain occurrences, such as driver-initiated markings or G-Force excesses, and prevent them from being over-written. An internal GPS antenna enables recording of vehicle location, speed, and direction, at most points in the recording sequence.

All the data is stored in proprietary files located on a removable SD card. Video, audio, location information, and G-force data may only be reviewed by viewing the contents of the SD card using proprietary Player software on any Windows PC. The software is provided at no additional cost to the end-user, and there are no follow-up fees for use or updating of the Player by authorized users.

Once viewed, the data may be deleted or stored at the manager's option, and critical video may be converted to standard media-player formats for transmission to legal or administrative offices.

Options

The recorder may be used in a variety of applications, and there are several accessories available in order to tailor the application to the end-user's requirement. Installation may be as simple as mounting the unit on a vehicle's windshield and providing power through a cigarette-lighter cord.

Commercial-grade installations may be accomplished using optional Security Enclosures to protect the unauthorized removal of the SD card, and those high-quality installations may be hard-wired into a commercial vehicle's electrical system to discourage tampering and provide recording capability even after the engine has been shut off. Additionally, there are several infra-red modules available to enhance night-vision within the driver/passenger compartment.















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Safety instructions

To ensure proper operation please read the manual before installation and use. Failure to follow this safety notice may cause a malfunction and may void the warranty.

	Do not clean the product with water or volatile solvents. This may damage the product or cause a short-circuit/fire.		Do not apply excessive shock, never insert foreign materials into the product. This may cause product damage or an electrical short-circuit.
	Video quality is affected by lighting conditions. GPS reception and accuracy is affected by signal reception. Nighttime or use in tunnels affects system operation.		Once installed, do not arbitrarily change the product location. This may cause lack of a valid GPS signal and may cause missing recorded vehicle speed, direction and location data.
	Do not disassemble, repair or modify the product. This voids the warranty and where we take no responsibility for product damage or problems caused by the user.		Any excessive window tinting may cause an unclear or distorted image on playback. First record and then playback the video to see if the recorded video is acceptable.
	Do not cover the camera lens with any materials or objects. This may affect recording quality.		Once installed, do not manipulate the product or stare at it while driving! This may cause a traffic accident.
	Ensure that the SD Card is not filled with protected "Events", which would prevent recording of new Events.		Use only the provided cables and specified power input. Using cables other than supplied with the unit or from Rosco may cause product damage, a fire or a shortcircuit.
	Do not obstruct the view of the product through the front windshield. The GPS receiver may not work properly.		Only use factory approved parts. Use the approved power cable. Contact your authorised Reseller for assistance.



Components

Dual-Vision® Recorder



P/N:3236

Cigarette Lighter Plug for Power Supply



External Manual Alarm Button

(Switch may be cut off & replaced with a dash mounted momentary push button)



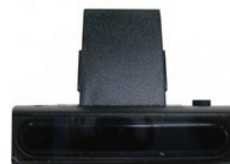
Dual-Vision® Delay Timer & Wiring Harness



Dual-Vision® Windshield Mount



Dual-Vision® IR Clip-On Module



Dual-Vision® SD Card



Dual-Vision® Documentation V6.2



- CD Installation/Operating Manual with Dual-Vision Software
- Label
- Quick Start Guide



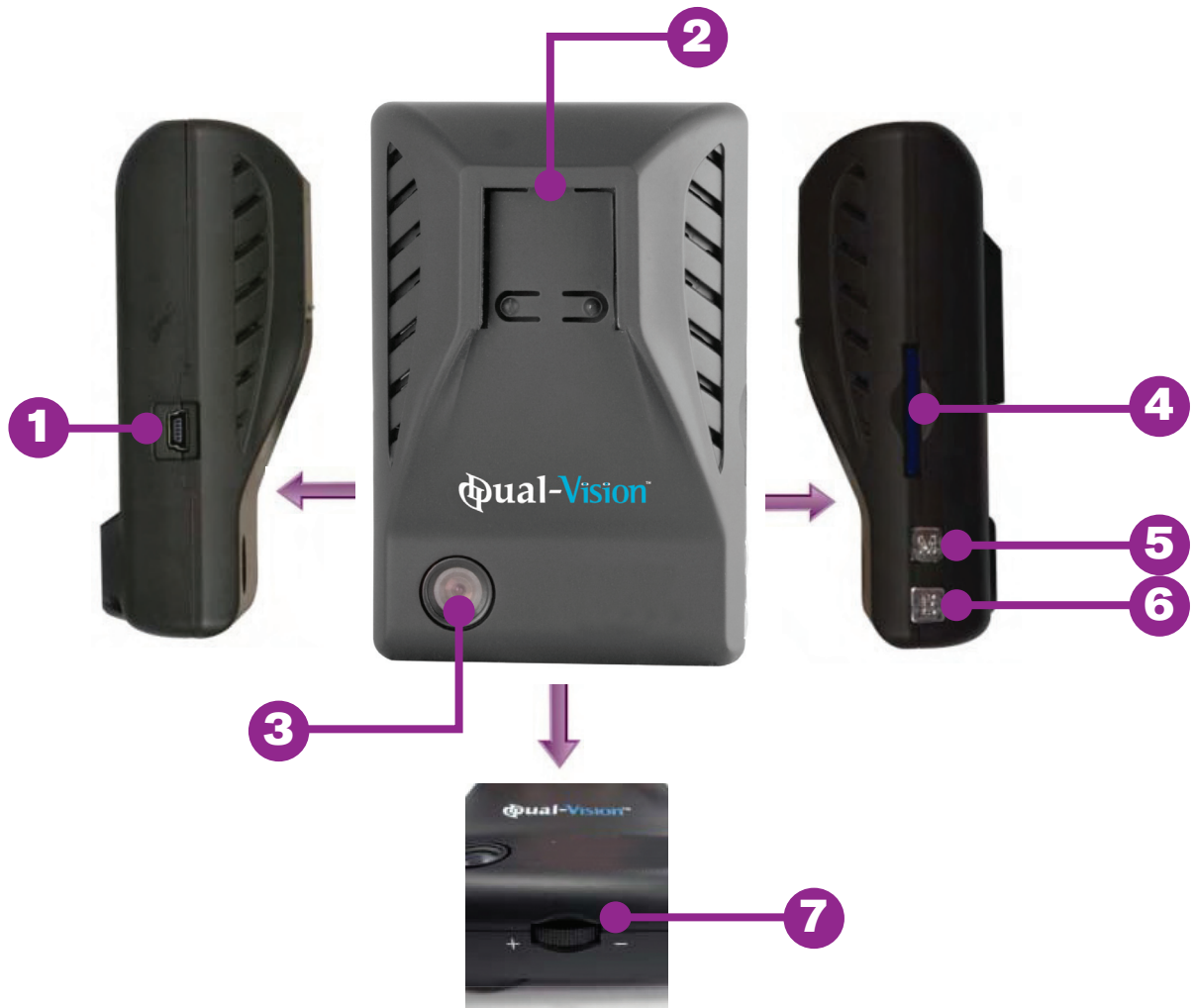
Dual-Vision™ Optional Security Enclosure

P/N:3237



Parts Nomenclature

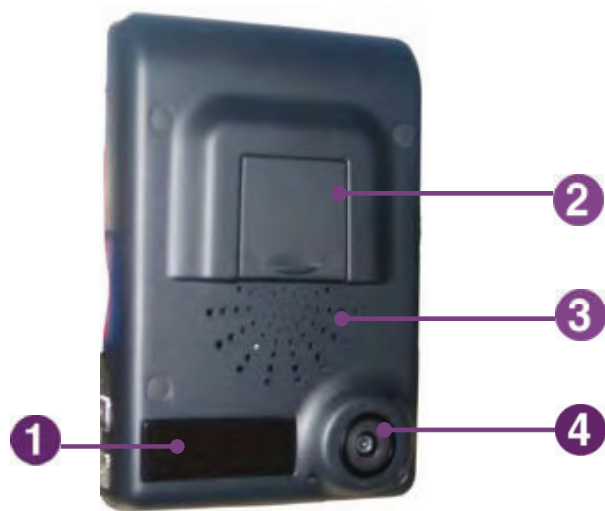
Front face of the recorder



No.	Name	Description
1	Power Connection Port	Used to connect the power cord with the unit
2	Front Mounting connection	Mates with the selected mount.
3	Forward Facing Camera	Record scenes through the windshield.
4	Forward Facing Camera	Record scenes through the windshield.
5	Cancel Emergency Record "M"	Allows driver to remove overwrite protection from all Events on SD Card (may be disabled in system config.).
6	Emergency Record "E"	Allows User to create a Manual Alarm Event (recording) if remote event button is not used
7	Volume Control	Used to adjust the audio volume for information.



Rear panel of recorder



No.	Name	Description
1	Status Display	Displays the status of Dual Vision recorder. Displays time or speed during normal operation.
2	Rear Mount Connection	Mates with the selected mount.
3	Built-in Speaker	Provides audio output for chime and other information
4	Interior Facing Camera	Records the scenes from inside your vehicle.



Technical specifications

Item	Specification	
Camera Type	CMOS sensor	
Video Resolution	VGA (640 x 480) up to 20 frames per second, 2 channels	
Audio	Built-in microphone	
GPS	Built-in GPS module	
Automatic Event Sensor	G-sensor (3-axis), Manual external alarm trigger	
Alarm input	Driver Button- for manual marking or event	
Memory	SD Card Depending on the model ordered, typically an 8 GB SD card is provided with the unit.	
Power Input	Dual-Vision™ Body	Cigarette Lighter Plug
	DC 5V to recording unit	DC 12V to 24V input

IMPORTANT NOTES:

Only use approved SD cards. Failure to use only approved SD cards may damage the unit or hinder recording.

Remember to ALWAYS disconnect power prior to removal of SD card from Dual-Vision™ Recorder.

Removing of SD card while recorder is powered will result in corrupted or lost data.



IMPORTANT!

Read Before Using Product

SD Card

NEVER REMOVE SD CARD FROM RECORDER UNLESS POWER IS DISCONNECTED

Power may remain on after engine shutdown due to timing sequence of module.

Before removing SD Card, either wait for module to time out, or manually unplug the mini USB connector from the recorder unit.

Do not use this SD card for any other purpose

Using this SD Card for any other purpose, or removing while recorder is powered, may cause a fatal error on the card

Recommended: Create a folder on PC and copy Dual-Vision™ files from SD card

Use only the SD card provided with the unit to ensure proper operation. Consult Brigade or your Authorised Reseller for SD card compatibility. Not all SD cards work with this unit. Following is a list of approved SD cards. This list will be updated from time to time.

Memory Size	SD Card Brand
1GB	Transcend *80x
2GB	SanDisk Transcend *150x Transcend
4GB	SanDisk SDHC- class2 DIGIX 150 Transcend SDHC class 6
8GB	SanDisk SDHC- class2 SanDisk Extreme3 SDHC class6
16GB	SanDisk Ultra II SDHC class2 SanDisk Ultra II SDHC class4

In cases where the computer used to playback the video does not support the SD SDHC2.0 memory card standard, use a separate SDHC2.0 USB reader. (SD to USB adapter).

Periodically format the SD card so as to prevent SD card errors over a long period of time. Note that upon formatting the SD card, all existing operating and data files are deleted. Be sure to perform a backup for any important video files. After formatting, load fresh program files (which have been pre-stored on your PC) back onto SD card.

To play back video, use the Dual Vision™ Player located on the SD card or on your PC.

With the SD card inserted in your computer, explore the SD card, locate the “player .exe” file which is located on the SD card. Then explore the “DATA” folder and select the file that you wish to playback.



Dual-Vision™ Functions



Front/interior view camera

The camera must be aligned to be level both horizontally and vertically. When the lens of the camera is obstructed or is dirty, clear images may not be captured. Periodic cleaning is required. To clean the lens, use a soft camera lens cloth to prevent damage.



Manual Cancellation of the Emergency Manual Record (if enabled in software)

This function is typically disabled by management in the setup software to prevent driver cancellation of protected events. In rare cases when this function is allowed, driver would press the “M” button for about 3 seconds until a chime is heard, indicating that previously-protected events have been erased.



Emergency Manual Record button.

In order to record driver-detected scenes of interest, press the emergency record “E” button to record. This creates an event file which is overwrite-protected.



SD card slot

Before inserting/removing the SD card, Power must be OFF, as indicated by the LED display being dark.



Volume control

Adjust the speaker volume level. Turn wheel to left to increase and turn wheel to right to decrease the volume.



Power connection port

Connect one end of the cigarette lighter plug cable into the matching connector of the power port of the unit. Plug the other end of this cable to the cigarette lighter plug of the vehicle. {Power may be hard wired (permanently wired) into the ACC (accessory) switched power of the vehicle for a more secure installation. REFER THIS TO TRAINED PERSONNEL ONLY.} Do not lose the supplied power cord or use other cables. If damaged or lost, contact your Reseller for a replacement.



LED Display window

System status is displayed on this multi-segment display. Used for system status and system diagnostics.



System Configuration:

Must be performed before using the recorder for the first time

Before using the system, remove the SD card from the recorder and insert into the SD slot into a PC. MS Windows will automatically see the device.

Locate the Folder called "Player". Click on "Player.exe." If using MS Windows™ Vista™ or a PC that is on a network, it is possible that the user will be blocked from opening the file. In that case, right click on "Player.exe", and then open the file as an "Administrator". On MS Windows™ Vista™, this is typically done the first time that the software application was launched.

When the Player's main screen appears, click on the System Configuration icon (⚙️).



The following window will appear, manager can set the required location and recording parameters:

No.	Name	Description
1	Video Quality	Sets the video recording quality. (Default: Standard)
2	Audio Recording	Enables or Disables the audio record function
3	G-Sensor Settings	Set the sensitivity of x,y & z axes to adjust for various vehicle types and road conditions. See p.24
4	Password Setting	Sets any password to be used to access the recorded data. (Default: none)
5	Time Zone Setting	Sets the time zone for the user. (Ex. USA , New York — GMT-05:00)
6	Unit of Speed	Set the unit of the car speed (MPH or KPH)
7	Vehicle ID Number	Sets the license plate number or fleet vehicle ID number (optional)
8	Speed Limit	Creates note on data file when pre-selected speed is exceeded (optional)
9	Speed/Tag Event	Option to mark the first file of a speeding sequence as an overwrite-protected event
10	Brightness of LCD	Suggested level = 3 Should be set as dim as possible to avoid driver distraction and shadows on recorded video
11	Disable erase button	Suggested action – check this box to prevent driver removal of Event overwrite protection
12	Reset Event Count	Allows manager to reset event and speed counters to zero (See pg.24)



Preparation for video recording

1. After configuration, re-insert the SD card in the recorder, and install recorder into vehicle. Follow the installation instructions. When you connect the unit to power, or turn the engine on, "dR Init" appears on the LED display, indicating that the recorder is initialising. In about one minute after power on, the unit completes initialising and a "ding dong" chime is heard. Recording begins at this time, although GPS data may not yet be active.
2. LCD Display Window will indicate the number of G-force or Driver-Button events recorded since last reset. This number (E000) will remain displayed for 10 seconds. Next, a similar display (S000) will indicate the number of times that speed limit was exceeded since last reset.
3. The LED display window will show a series of numbers, indicating that GPS satellites are being acquired. This may take a while; up to 20 minutes on initial startup, 1-3 minutes on subsequent vehicle starts. When "GPS FINE" appears in the display, this indicates that GPS data is now being embedded into the recording.
4. After the acquisition of signal, the Dual-Vision™ Recorder starts continuous recording with GPS data. The unit is recording video and audio as well as vehicle speed, direction and location.

NOTE: When the vehicle is in motion, the LCD displays vehicle speed. When the vehicle is stopped, the unit shows local time.

Continuous recording while driving

1. When the capacity of the SD card has been reached, the oldest files are overwritten for continuous recording. "EVENT" data recorded by either the unit's internal G-Sensor or external manual button are not overwritten.
2. As long as power is applied to the unit, Dual Vision™ continues recording.
3. For continuous recording after engine shutdown (timed delay shutdown recording), discard the cigarette lighter and use the Optional Delay Timer Module Model, and follow wiring instructions located in the back of this manual
4. For tamper-resistant, secure installation, consider using the optional Security Enclosure, described in the back of this manual



Be sure to stop the engine before installing the product.

Remove all power to any areas where wires will be connected.

Install the product in a location where the satellite signals may be properly received. (We recommend testing for GPS acquisition prior to permanent mounting)

Before permanently mounting the unit, ensure that the camera views meet your requirements. (ex: where the interior view is not hidden by the mirror inside your car)

The Recorder must be installed to be aligned both horizontally and vertically



Installation using the windshield mount



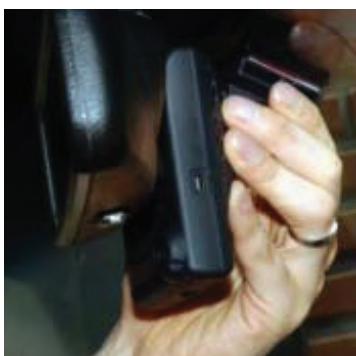
1. Remove the fixed plastic cover of the front of the unit.



2. Insert the mount with pre-mounted adhesive (red tape) into the guide.



3. Determine the location to attach the mount to the windshield or other surface. Typically the unit is mounted behind and slightly below the mirror. Make sure the rear facing camera lens and IR module are not obstructed by the mirror.



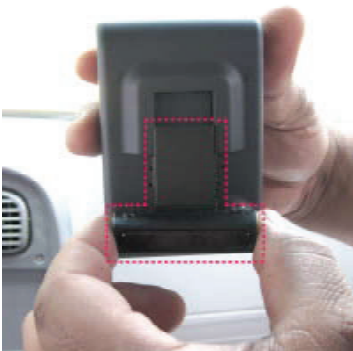
4. Clean the mounting surface (glass) with commercial glass cleaner. Then remove the red film from the adhesive tape that is on the mount. Tightly press the mount to the windshield.



Installing the IR Clip-On Module



1. Once the Mini USB connector found on the “Y”: break-out cable has been connected to the recorder, and when the recorder has been mounted in its final position, plug the mini-jack connection on this cable to the mating jack located on the IR Clip-On light module.



2. Insert the IR Clip-On module into the slot located above the interior camera.



Only connect power to the unit once the IR light module has been connected.

SECURE ALL WIRES!



Installing the Remote Manual Alarm Event Button



1. Insert the jack of the manual alarm input cable into the mating receptacle on the upper part of the Cigarette Lighter Plug. Run the cable, hiding and securing it in place.



2. Locate the best position for the remote alarm button. Secure the button by removing the adhesive film attached to the tape on the external button, press and hold. Use isopropyl alcohol to clean the surface before mounting.

Connecting the power cord to the Recorder



1. With the recorder mounted in its final location, connect the power cord to Mini-USB connector on the right side of the recorder's body
2. Pass the cable towards the vehicle's headliner. Avoid passing the cable across the top of the recorder as this may impede GPS signal reception.
3. Pass the power cord along the headliner of the vehicle, hiding it, or securing it as needed, then bring it to the cigarette lighter jack.



NOTE: The recorder will only record when there is power to the cigarette lighter receptacle. For commercial applications, consider using the Optional Delay Timer Module, which provides continuous recording for a pre-determined time after the engine has been turned off. This option is usually used in conjunction with the Security Enclosure.



Dual Vision Reader

PC Minimum System Requirements:

Component	Requirement
CPU	Pentium 4 / 1GHz processor or higher
Memory	512 MB of RAM or higher
Operating system	Microsoft Windows XP Home Edition or higher
Graphics	DirectX 8.1b or higher
Hard disk drive space	200 MB or higher

***Note:** When using MS Windows Vista and the Dual Vision™ Player software for the first time, you may have to run the Player in Administrator Mode.

To Review Video:

- 1) Remove Power from the Recorder. The LED display should be dark.
- 2) Remove the SD card from the Recorder and insert the SD card into a PC or SD card reader and connect it to a computer.
- 3) Explore the SD card.
- 4) Locate the “Player.exe” file that is found in the “PLAYER” folder.
Double click on “Player.exe”.

The following window will appear:



No.	Playback Screen	Description
1	Forward Camera View	Displays the video images recorded by the forward facing camera.
2	Rear Facing Camera View	Displays the video images recorded by the rear (interior) facing camera.
3	Vehicle Speed	Displays the speed of the vehicle.
4	Vehicle Location	Displays the coordinates (latitude and longitude) of the vehicle. (Requires GPS signal lock)
5	Direction of Travel	Displays the vehicle's direction of travel
6	G Force Analyser	Graphically Displays vehicle motion & any impact detected by the G-Force sensor.



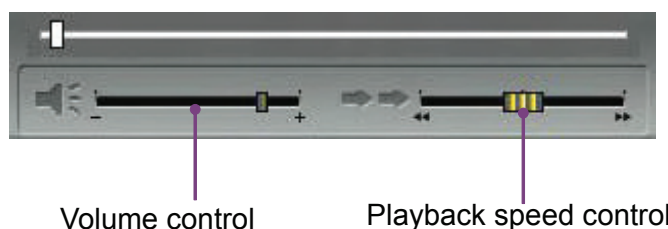


Playback Interface Controls

Button	Function	Button	Function
	Previous Data File		Next Data File
	Move to the Previous Frame		Open data file
	Reverse Playback		Convert recording into AVI format
	Pause the Playback		Link the recorded data with map
	Stop Playback		Open Configuration Screen
	Playback		Exit, close the program
	Move to the Next Frame		Hide/close the window



Volume and Playback Speed Controls




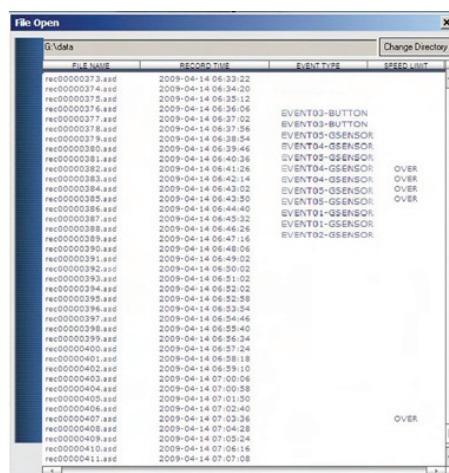
Volume control: Adjusts the volume level while playing back the recorded data.

Playback speed control: Adjusts the video playback speed.

To playback video, select the “Open data” button, explore the SD card or other location where the recorded (or saved) data is located, (folder named DATA is on the SD card), then double click the selected file from the list in order to play.

Detailed Video Playback Instructions

1. With the Reader interface Open: After clicking the folder icon  on the lower right corner of the viewer, click Change Directory to select the location for the recorded data. Typically the first time you do this all the files are located on the SD card. If saved elsewhere, use this utility to explore your computer to locate the file for playback.
2. When the file list appears, double-click the desired file to play back.



FILE NAME: File name of the recorded video images.

RECORD TIME: Date and time when the images were recorded.

EVENT TYPE: Displays the type of event for all write-protected files


SPEED LIMIT: “Over” notes that vehicle exceeded the pre-determined speed limit at some point in time within this file. Files containing “Over” designator without other events are not protected from overwriting. NOTE: If “Tag & Event” was selected on confirmation screen, then the first file of each speed sequence will be designated as an overwrite-protected event.

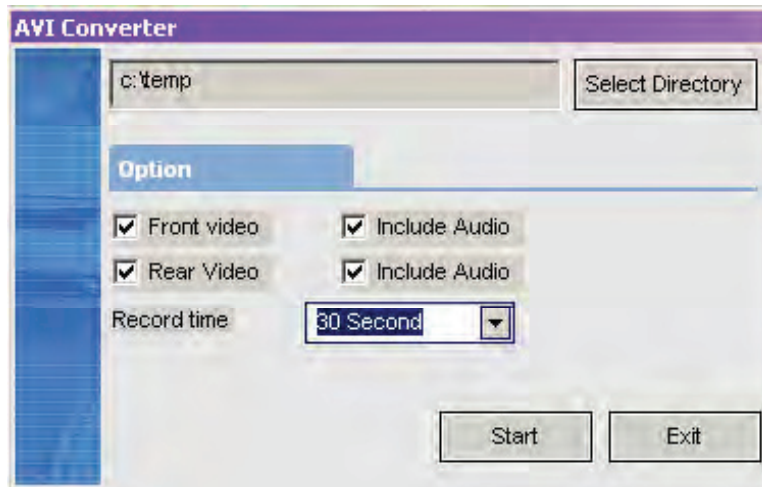
Click the list name to sort by File Name, Record Time, Event Type, or Speed Limit.



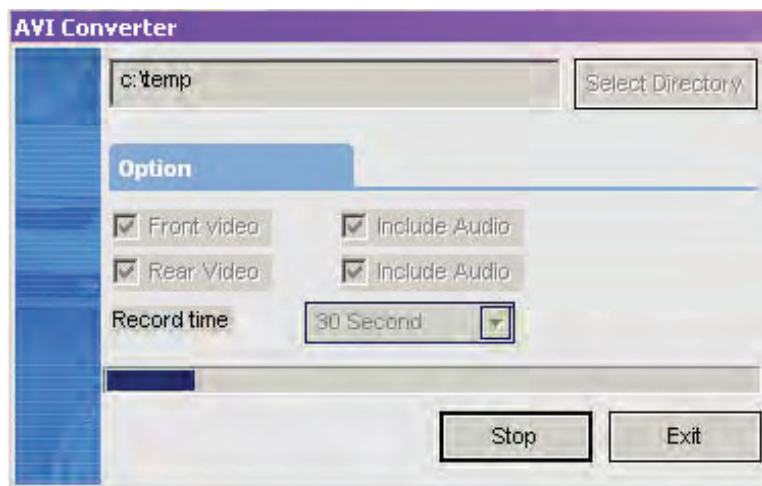
Converting the Authenticated files into AVI file format readable by any Media Player (also allows one to make short .avi clips for emailing purposes)

One may convert a portion of the recorded data into an AVI file format when one wants to share the recorded data with someone else or email a file.

1. Click the AVI conversion button  at the start of video clip position where you want to convert the images into the AVI file format. The video playback stops and the AVI conversion window appear.



2. Set the following options from the window and click Start.
 - 1) AVI storage directory
 - 2) Selection of previous/next videos and whether or not to include audio data
 - 3) AVI recording time




* **NOTE:** The AVI files cannot be created on a portable disk such as SD card or USB memory stick but only on a hard disk first due to speed required for the conversion



Interfacing with a GIS/City map

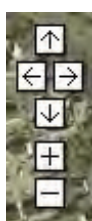
Dual-Vision™ simultaneously records the GPS data while driving so you can check the driver's route on the map.

To play back video with the location of the vehicle,

- 1) Connect the PC to an internet connection. To use the function, the system must access the Internet. If *Google Earth™ is not installed on the PC, the Dual-Vision™ Player program should initialize an installation the first time it is used. If this does not occur please exit the program, locate Google Earth™ software on the internet, and install.
- 2) Open the "Player" by opening "Player.exe"
- 3) Open a file. The video and data will be played back.
- 4) Click the GIS/MAP icon  located on the lower right corner. The map window appears for the user to see the vehicle location and travel on a city map.



Using Google Earth™, there are additional controls for the map that has been brought up in this application:



Movement,
scale up/
down on the
map

Map

View normal map

Satellite

View satellite map

Hybrid

View both normal and satel-
lite maps

*©2009 Google & Map data ©2008 Tele Atlas



Additional Functions Playback Software: Viewing the pop-up display window

When you double-click the display window one at a time, the recorded images are played back in a larger format.

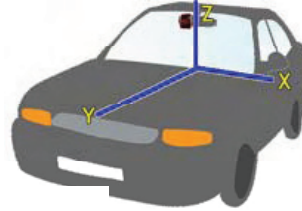
Double clicking the screen returns the view to normal, original size.

You may use your PC's mouse to move the screens and adjust them within your desktop window.

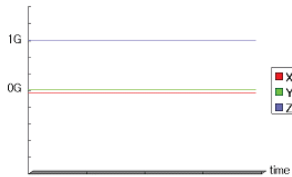


Setting Up & Analyzing G-SENSOR data

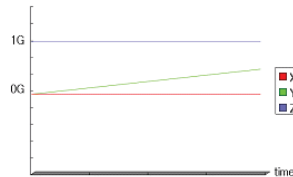
The G-Force sensor detects changes in directional forces affecting the vehicle, displays them in a graphical format, and creates Events when those forces exceed supervisor-set values. One may analyse the resulting data as follows:



Vehicle Stopped



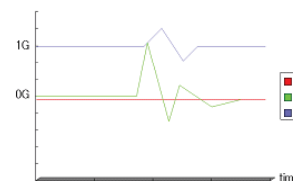
Deceleration



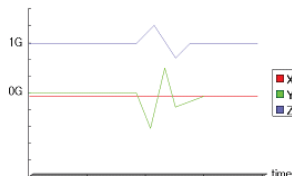
Acceleration



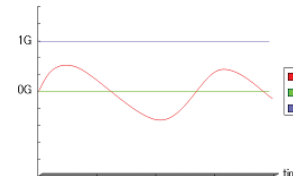
Frontal collision



Rear collision



Left/right turn



RECOMMENDED G VALUES (This is a reference only)

Vehicle Type	X, Y, Z Axes
School Bus	1.25, 1.25, 2.0
Shuttle Bus	1.25, 1.25, 2.0
Coach Bus	1.0, 1.0, 2.0
Truck (Highway)	1.0, 1.0, 2.0
Truck (Local)	1.25, 1.25, 2.0
Sedan	.75, .75, 1.75

Key

X axis - left/right motion

Y axis - front/back motion

Z axis - up/down motion

Setup G-Force Sensor

Note that X & Y axes are 0 when vehicle is stationary. Z axis is typically at +1 when vehicle is stationary, due to the effect of the earth's gravitational force. Using the slide-bars, adjust the values for each axis. This is a trial-and-error effort, since different types of vehicles will react differently under various road conditions. The values represent a range (+ or -) around G=0. The value for Z-axis must be set above 1, so that it does not record Events while the vehicle is not moving. Under normal driving conditions for an automobile, settings of X = .75G , Y = .75G , Z = 1.75G are recommended as being sufficient to identify driver-behavior issues while being high enough to avoid most unnecessary Event-marking caused by potholes or normal braking. Please see the above chart for suggested settings appropriate for a variety of commercial vehicles.



System Diagnostics via the Dual-Vision™ using the incorporated multi-segment LED Display

One can see both diagnostic and system status information.

Status	Event	Sound or Status	Display
System Initialisation after application of power to the unit	Initialization after power applied	No sound	[dr][Init]
	When SD card is not inserted	Chime is heard ("Ding dong") from the speaker. (Turn off the power, re-insert the SD card, supply power again)	[Err][Sd]
	GPS update Error	Resolution: remove power, wait 10 seconds, re-apply power	[Err0]
	While GPS is updating	GPS data is now being received and is being downloaded	[dbUP]
G-sensor automatic activation, or User driven Event Button or Remote Event Button activation	Event recording	One chime	_ _
	Number of events recorded (5) by the system and available	Two chimes	[FULL][---5] ~[---1]
	Event recording is not available as not enough memory is available	Three chimes	[FULL][----]
	Event captured	Chimes	
Status	Event	Sound or Status	Display
DR initialisation is completed	Greeting	Chimes	HELLO
	Satellite information (Satellite reception quality)	No Sound	5-45
	GPS loading	No Sound	GPS FINE



Dual-Vision™ Firmware & Reader updates

1. With the Unit unpowered (blank unlit multi segment LED display), remove the SD Card from the unit, Insert the card into either the SD card slot on the computer.
2. If your computer doesn't have SD card slot, connect the memory reader to the USB port on your computer.
3. If you have received new firmware or have been directed to a web or ftp site to receive new firmware and after accessing the site, first download the related firmware or playback software.

IT IS RECOMMENDED THAT A COPY OF ALL THE FILES THAT ARE LOCATED ON THE SD CARD BE STORED (COPIED) ONTO THE PC'S COMPUTER IN A FILE CALLED 'SD CARD MASTER'

4. After downloading the update file, copy it to the update directory on the SD card. (If the update directory folder is not already existing on the SD card, create a new folder on the SD card and rename the folder name to 'update'. Then copy the file again into this folder.) Then insert the SD card into the Recorder, power up the recorder, and the new operating file or firmware will be uploaded to the Recorder. You need to do this only once per recorder per update.

NOTE: IT IS RECOMMENDED THAT PERIODCIIALLY THE SD CARD BE FORMATTED AND THEN RELOADED WITH THE FILES PREVIOUSLY STORED ON THE PC. IDEALLY THIS SHOULD BE DONE ONCE A MONTH. USE THE PANASONIC SD CARD FORMATTER FOUND ON THE E INSTRUCTION CD. IT MAY ALSO BE DOWNLOADED FROM: http://panasonic.jp/support/global/cs/sd/download/sd_formatter.html

FOR ANY PLAYBACK SOFTWARE UPDATE

5. After downloading the Playback SW file, copy it to the player directory on the SD card
6. After installing the SD card on the body and connecting the power, update automatically starts.



Do not remove the cigarette lighter plug or interrupt power to the unit or stop the engine during update.

Note: For further information, Contact your Brigade Authorised Reseller.



Troubleshooting

Software issues:

When you start the program, if you have 'skin control error' please follow below;

For XP OS User,

- a. Needed log on with administrator right when start PC.
- b. If user log on without administrator right, the player will not run. Skin error message will display

Vista OS user

- a. Firstly log on with administrator right when start PC.
- b. Then before start Player, click the right button of mouse and permit administrator mode.

Loss of power to unit:

For cigarette lighter installations, check fuse located behind tip of plug.

McMaster-Carr Fuse Part No. 7085k26

Available Amps: 1½

AC Voltage Rating (VAC): 250

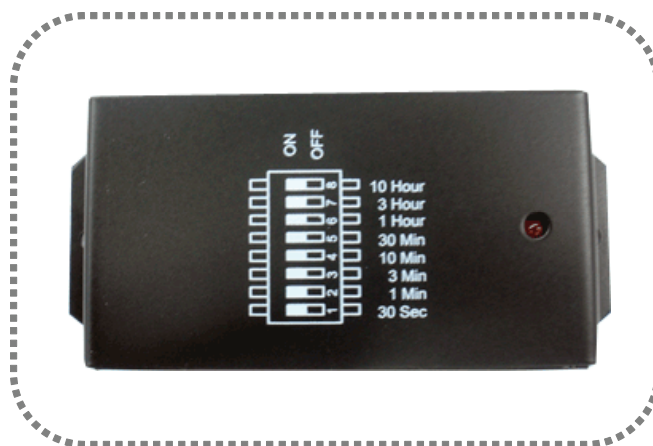
Replace fuse



Installation of optional Delay Timer Module

Accessory for Dual-Vision™ Recorder

Specifically designed for applications requiring continued recording after ignition shut down.



Components:



Main features:

For those installations requiring the maintaining of power to the recorder after the engine has been turned off, replace the cigarette lighter plug assembly with this module, adding wiring as shown.

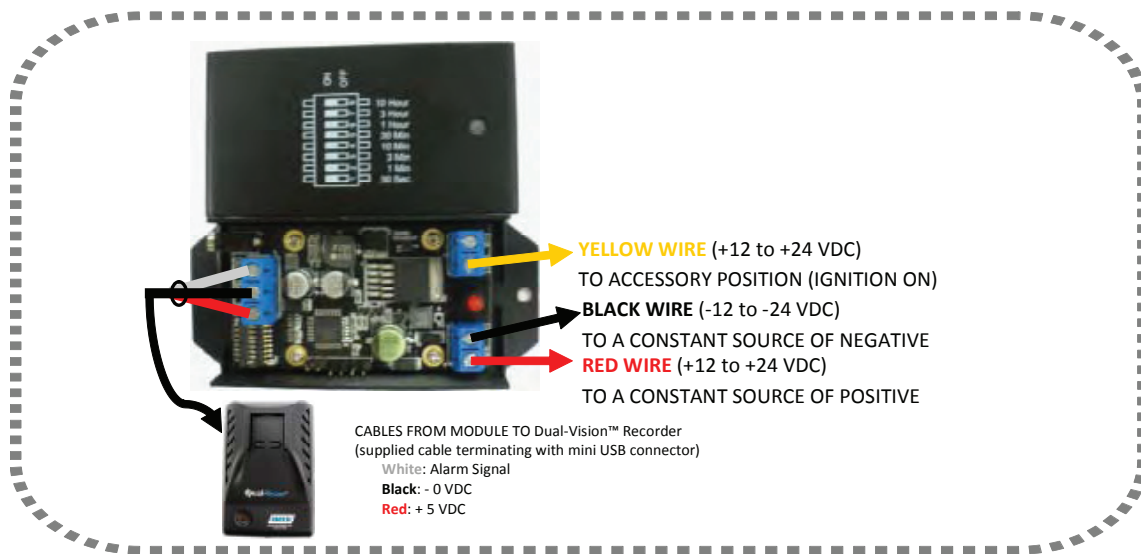
By way of setting the dip switches per the diagram on the cover, one may keep the Recorder powered for a pre-selected time (ranging from 30 seconds to 14 hours) after the vehicle's ignition has been turned off.

The unit is factory set for a 4 minute shutdown.

NOTE: Prior to removing SD card, Power to unit must be off. Power may remain on after engine shutdown due to timing sequence of timer module. Before removing SD Card, either wait for module to time out, or manually unplug the mini USB connector from the recorder unit.



Installation instructions



1. Ensure that all power is off. Read the instruction manual first to familiarise yourself with the wiring.
2. Remove the cover of the Delay Timer Module to access the connections.
3. Install the Recorder as you normally would on the windshield or in the optional Security Enclosure.
4. Install the timer module in a secure, dry, area.
5. Plug the USB connector of the supplied cable into the Dual-Vision™ Recorder. Make connections to the Timer module (3 wires).
6. Plug the mini jack on the USB cable at the recorder end to the IR illuminator (if used).
7. Terminate the bare ends of the USB cable (white, black and red) as shown. Note: The delay timer also reduces power from 12 to 24 volts from the supply source to 5 volts DC used by the recorder.
8. Plug in the remote manual push button into the mini-jack (if used).
9. Connect the Delay Timer to a source of continuous 12-24 VDC power. (+) red and (-) black wires
10. Connect the Delay Timer Ignition Sense wire (yellow) to a source of +12 to +24 VDC when the engine is running and/or the accessory switch of the engine is on.
11. Re-apply any power that has been removed.
12. Test the system by turning the engine on, after seeing the time show on the LED display of the recorder (signaling to you that the unit is operating normally), then turn the engine off. The recorder will shut down in 30 seconds. Once tested, startup the recorder, and when the time is shown, trigger the momentary alarm button if used. The LED display should indicate that an alarm has been captured. (Refer the recorder manual). Once tests are completed, adjust the dip switch to the desired delay shutdown time. Secure all wires.



Installation of optional Security Enclosure



Step 1: Ensure that all parts are included with the kit:

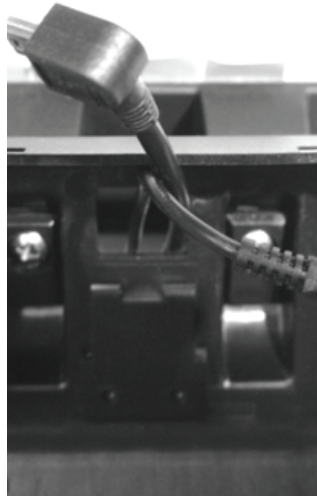
- Dual-Vision™ Housing
- Set of Keys for Lock
- 2 Adhesive pads (1 temporary, 1 permanent)
- 1 length of wire track
- 3M Adhesive Primer for permanent installation

Step 2: Clean the inside of the windshield with commercial cleaner. Make sure glass is completely clean and free of any oil or residue.

Step 3: Identify the best mounting location for Dual-Vision™ by temporarily mounting the unit with the enclosed dark red adhesive pad. The best mounting location can be determined by powering up the unit then viewing the recorded video files that captured images from both inside and outside of the vehicle. During this test period, it is important to confirm that a steady GPS signal was acquired. This may require driving the vehicle for a short period of time. Remove the temporary adhesive pad as soon as the proper location has been determined. **DO NOT ALLOW the temporary adhesive pad to remain on either surface for more than 12 hours. DO NOT APPLY the primer when using the temporary adhesive pad.** Instructions for permanent mounting is explained in Step 11.



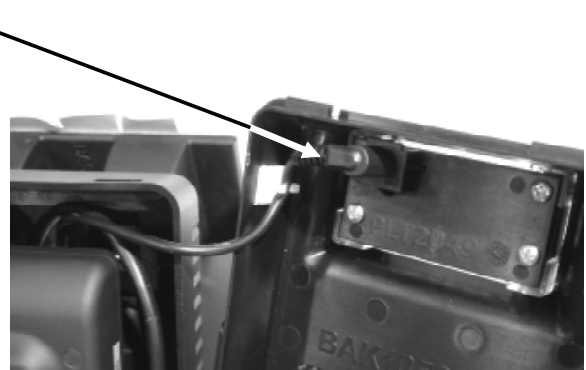
Step 4: Insert the terminating ends of the recorder data connection (mini USB) and infrared illuminator power board (mini jack) through the hole in the rear case of the security enclosure as shown.



Step 5: Connect the Mini USB cable to the Dual-Vision™ recorder.

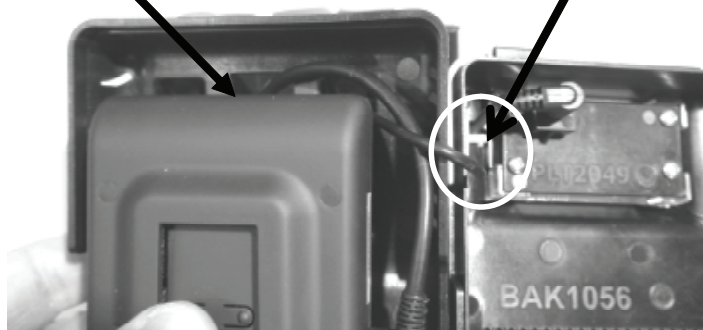
Step 6: Mount the Dual-Vision™ recorder to the rear case of the housing assembly by sliding it down onto the catch that is on the rear of the case, thus locking the unit in place.

Step 7: Connect the mini-plug to the mating connector on Infrared Illuminator board that is mounted on the inside front cover of the housing as shown.



Step 8: Route the cables as shown, making sure that the cables do not pass directly above the Dual-Vision™ recorder as this may interfere with GPS signal reception.

Use the white clamp on the inside of the front cover to secure the power connection to the Infrared Illuminator.



Step 9: Close the enclosure and use the key to lock the enclosure.



Step 10: Locate the recorder/housing assembly close to the center of the windshield and at least 65mm below the headliner. Using a level and adjusting the rear bracket, align the assembly to be straight both vertically and horizontally. Using the temporary adhesive pad (dark red), attach the recorder/housing assembly to the windshield and power the unit. It is suggested to drive the vehicle for approximately 30 minutes, or at least until GPS signal is acquired. If GPS signal is not acquired, it is possible that the recorder's internal antenna reception is being blocked. If so, dismount the unit, and relocate several centimetres lower on the windshield if possible. It is important that the GPS antenna (located at the top of the inside of the recorder) have a clear "line of sight" to the sky.

Return to depot, power off unit, remove SD card, and view images using the included Dual-Vision™ player. Make certain that GPS info is properly displayed and determine that both exterior and interior video views are acceptable.



- Step 11: Once testing has confirmed proper location for the Security Enclosure, remove the adhesive pad used for testing, then apply a layer of 3M Primer on the surface of contact of the Security Enclosure base. Apply the primer at the mounting area of the windshield. Let the primer dry for at least 5 minutes. Carefully position the enclosure onto the windshield and fasten using the permanent adhesive pad. Press the entire assembly firmly on the windshield for about 30 seconds. The enclosure is now mounted permanently on the windshield. Using the included alcohol pad, remove any excess primer from the windshield. Using the included alcohol pad, remove any excess primer from the windshield.



- Step 12: Route the cable vertically up to the headliner and enclose within the included wire track cover, as shown (it is probably necessary to notch and cut the track cover). Continue horizontally along the head liner, hiding cables where possible. Keep the cables away from the top of the Brigade Security Enclosure so as not to interfere with the GPS signal reception. Run the cable down the side pillar.
- Step 13: Depending on the installation requirements, run the cables to their final location and terminate the cables to either a source of power or to the Dual-Vision™ Delay Timer. Follow instructions as outlined in the appropriate installation manual.



PEACE OF MIND FROM BRIGADE

The quality of our product range is the cornerstone on which the continuing relationship with our customers is built. To reflect our confidence in the reliability of our products, some have a 'lifetime' warranty. Many others have a 3 year warranty and the rest have a 2 year warranty (excludes hard disk drives). The following quick reference chart indicates the warranty available on Brigade products.



1 Year Warranty

Dual Vision mobile digital recording

Warranty Terms and Conditions

Brigade warrants all goods to be free from defect in material and workmanship in normal use provided that they have been installed and operated in accordance with the instructions supplied. The commencement date of all warranties is the date of delivery to the purchaser unless otherwise agreed in writing by Brigade. The period during which the warranty applies is stated above. Brigade make no other warranty, express or implied, with respect to the goods, their marketability, quality or fitness for any particular use or purpose. In particular, but without prejudice to the general provisions of the conditions of sale, no responsibility is assumed for incidental or consequential loss by reason of any warranty express or implied. Full details of Brigade's Terms and Conditions are contained in the Price List.

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