



10-8 In-Car Video System

Installation / User Manual

Warranty & Return Information

All Products

- Three (3) year free replacement of any failed component. No RMA required.

Car Camera Components

1. Call 1-888-788-1048 and ask for Technical Support.
2. We will then mail a new component via USPS Priority Mail within one (1) business day.
3. When you receive the replacement, mail back the failed component.

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10-8 Digital Video Evidence Solutions
1423 Huntsville Hwy. Suite F
Fayetteville, TN 37334
Tel: (888) 788-1048 • (931) 233-8550
Fax: (931) 233-1263
World Wide Web: www.10-8Video.com

Shipping Address

10-8 Video Digital Evidence Solutions
1423 Huntsville, Hwy. Suite F
Fayetteville, TN 37334

Phone Numbers

(888) 788-1048 • (931) 233-8550
(931) 233-1263 (FAX)

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The CD at left contains the viewer software needed for playback on your computer. It also includes PDF copies of all manuals.



When you insert the CD it will automatically run the software installation program

Manuals

To access the manuals:

- 1** Insert the CD into your CD-ROM/DVD drive.
- 2** When the installation program launches, click **Cancel** at the install prompt.
- 3** You can then access the files on the CD through your file manager like you would any other CD.

CD-ROM

Safety

Installation Safety



WARNING: This product utilizes high voltage. Any unauthorized modifications or damage to the products may result in electrical shock.

1. Handle all components with care. Inspect regularly for damage to components and cabling.
2. You are responsible to ensure that the installation of this product does not void or affect the vehicle manufacturer's warranty.



10-8 Video, or its branches are not liable in full or in part for improper installation resulting in loss or damage to your property, or for voiding all or part of the vehicle manufacturer's warranty.

3. Do not apply excessive force to any of the components contained within this kit.
4. Please follow the procedures from this installation manual.



Excessive force used before, during or after installation that results in a damaged or non-functional part shall void all warranties.



Improper installation or modification of this product shall void all warranties.

Daily Operation

You, as the driver, are solely responsible for the safe operation of your vehicle and the safety of your passengers according to the US and local traffic regulations.



WARNING: Do not use any features of this system to the extent it distracts you from safe driving. Your first priority while driving should always be the safe operation of your vehicle.

10-8 Video cannot accept any responsibility whatsoever for accidents resulting from failure to observe these precautions or safety instructions:

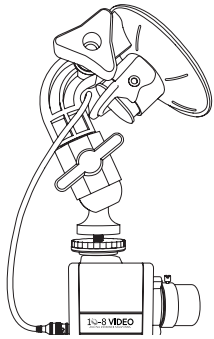


Excessive force used before, during or after installation that results in a damaged or non-functional part shall void all warranties.

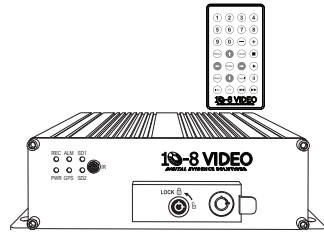


Improper installation or modification of this product shall void all warranties.

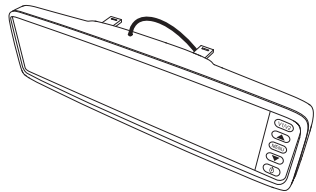
Package Contents



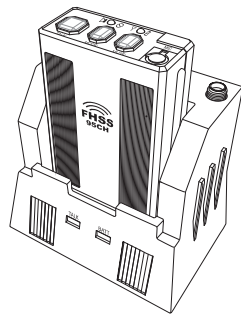
Camera* & Mount



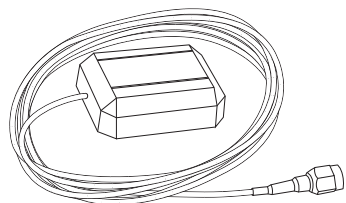
Digital Video Recorder (DVR)



Mirror



Wireless Mic (Optional)
2.4GHZ model shown.

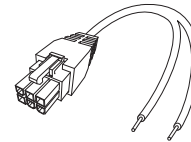


GPS Unit (Optional)

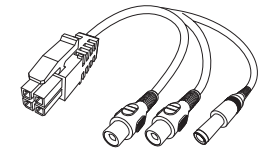
* NOTE: Actual camera appearance may vary from illustration.

HARNESSES *(Simplified for clarity)*

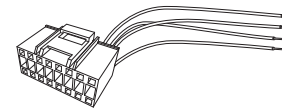
Power Harness



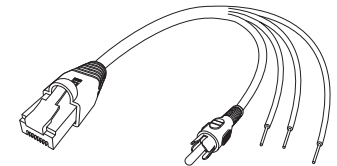
A/V Harness



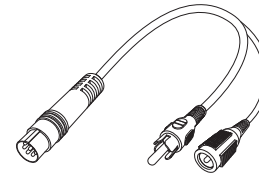
Sensor Harness



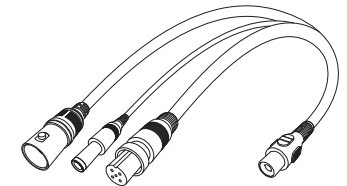
2.4GHZ Harness



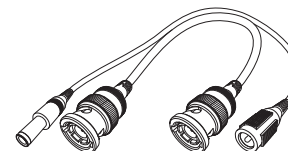
Mirror Harness

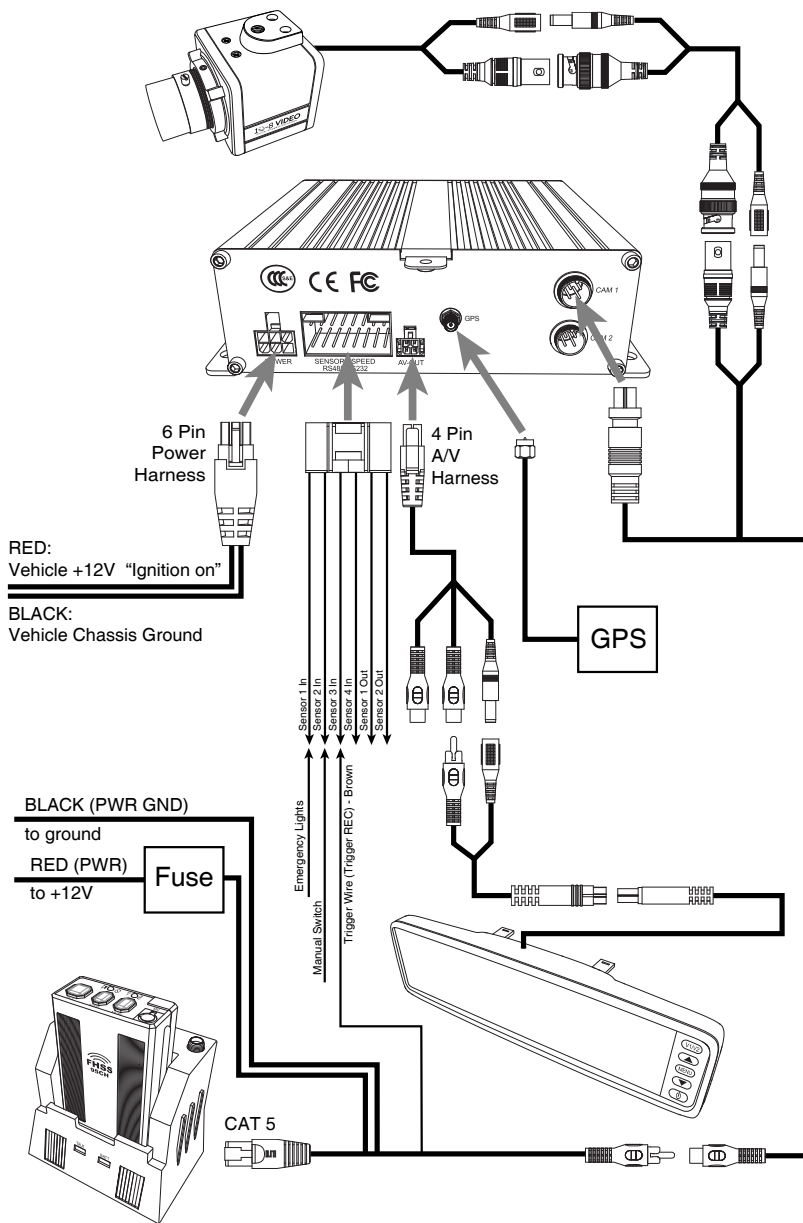


Video Harness



Camera Harness





NOTE: Actual camera appearance may vary from illustration.

Introduction

The installation of the 10-8 Patrol Car video system breaks down to some very simple steps. The basic connection for video and audio are very similar to a VCR or DVD player. The one area that differs from what you may have done in the past is the connections for the alarm inputs. There are four (4) sensor 'IN' wires that will activate the recorder anytime voltage is applied to any of the four (4) wires.

To help make the connections easier, the cables that attach to the back of the DVR each use a different type of connector. Familiarize yourself with the inputs in the picture on pages 12 and 13.

i You will need a single 12 volt power source for the system with just one (1) power and one (1) ground source needed.

We strongly recommend that the power source be from switched power that is only hot when the vehicle key is in the 'ON' position. This should be a five (5) amp fused power source. To eliminate interference, there should be no other equipment on this circuit.

i It is also very important that the ground be a good chassis ground source and not tied into the ground of other equipment.

i When the DVR's door is unlocked to allow access to the SD cards the system is automatically powered down to protect the files on the SD cards. When the door is locked, the DVR system will be able to accept power and turn on again.

Hardware: Installation

Digital Video Recorder Unit (DVR)

The first thing you will want to do is locate where you want to install the DVR. The small size of the unit makes that much easier than just a few short years ago.

Common Installation Areas

- Main equipment console
- Either side of the console
- In the dash
- Under the dash.
- Under pr next to Main Equipment Console
- For Havis consoles, Havis offers a one piece mounting bracket.
Part# C-E-T8V-1P



Try to keep the unit in sight of the driver where they will be able to use the I/R remote more easily. If needed, the DVR ships with brackets for mounting.

- 1** Insert the *Red/Black 6-pin Power Harness Connector* into power receptacle in rear of DVR unit making sure it locks into place.
- 2** Connect *BLACK lead* to a chassis ground.
- 3** Connect *RED lead* to 12 volt 'ignition on' power source.
- 4** Connect *Sensor Harness* to back of DVR.
- 5** Connect *4-pin A/V Harness* to back of DVR.
- 6** Connect *GPS Cable Connector* to back of DVR.
- 7** Connect *Camera Harness* to back of DVR. Tighten connector nut to secure harness.

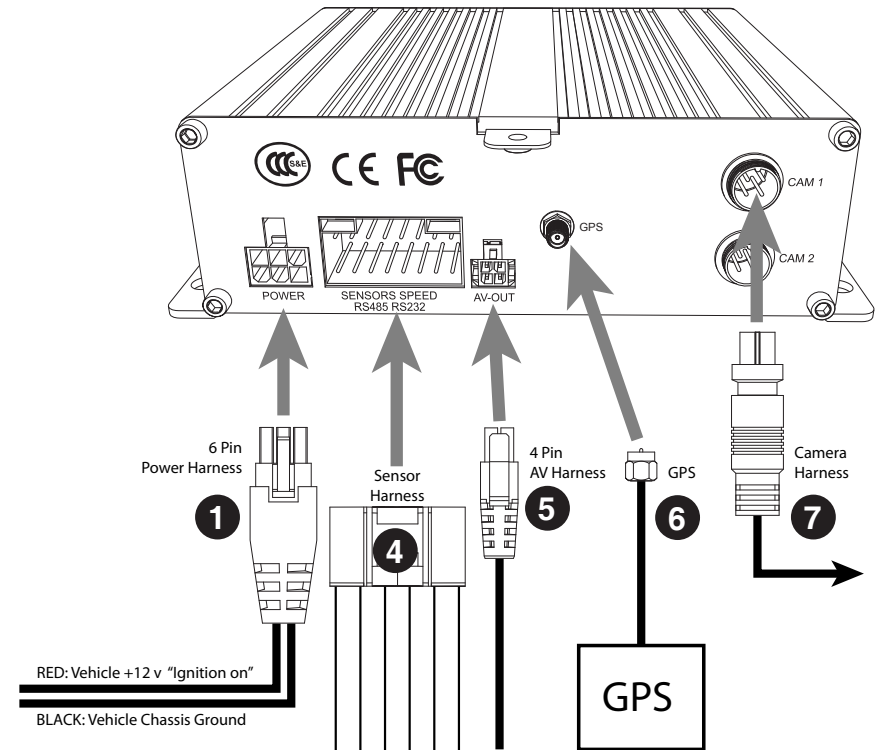


FIG. 1

Connecting Harnesses to DVR

Hardware: Installation

Emergency Lights & Manual Activation

There are four (4) wires (leads) coming from the sensor harness. Each wire will activate the recorder when voltage is applied to any single wire. In a typical patrol car installation, 2 of these wires will be used.



These wires will detect when voltage is present and activate the recorder.

Sensor 'IN' Wire 1

- 1 Connect Sensor Wire 1 to the output side of your control box for your pursuit lights.

You can connect it to any of the lights that are used for emergency traffic. This way the recorder will start anytime you are running emergency traffic. Depending on the type of switch box used, there may be a place to connect at the back of the switch box. If not, simply connect to any wire that goes to a 12v light that is activated when you turn on the emergency/pursuit lights.

Sensor 'IN' Wire 2

- 2 Connect Sensor Wire 2 to a manual switch that you will activate when you want to start the recorder without lights activated.

You can use any switch of your choosing that will provide 12v to the wire.

Many control boxes in use today will have a blank switch that is not being used. These are a great choice for the manual switch. If none are available, a simple toggle or rocker switch mounted in a convenient location works well.



Caution: These wires are very sensitive and care must be taken that you do not connect to a wire that has low voltage all the time, as the recorder will detect voltage and activate the recorder.

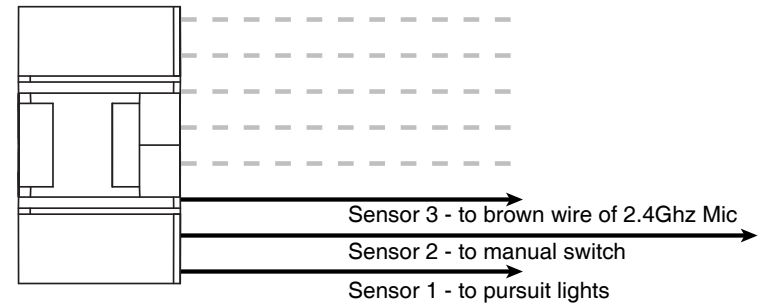


FIG. 2
Sensor Harness

Hardware: Installation

2.4GHZ Wireless Mic

If your department opted for our new 2.4ghz wireless microphone system, congratulations! This is an incredible wireless microphone with excellent range and clarity. The installation is easy and straight forward.

- 1 Find a suitable place in the vehicle for the base station/receiver.

A bracket is included. It should be mounted in an easily accessible position. Be sure there is room to easily insert and remove the transmitter in the cradle.

- 2 Connect the **RED wire** (labeled PWR) to a positive 12v source.
- 3 Connect the **BLACK wire** (labeled PWR GND) to a ground.



All of the wires are labeled from the factory. For this installation, there are 3 wires that will not be used for this installation:

- a white wire labeled 'Mute Indication'
- a black wire labeled 'Trigger Gnd'
- an orange wire labeled 'TX indication'.

These wire can be cut or tucked away.

Brown Wire (Trigger REC)

One wire's use is optional; the small brown wire labeled 'Trigger REC'. If this wire is connected to the Sensor 'IN' #3 lead from the back of the DVR (FIG 2), then the DVR will begin recording when the talk button on transmitter is active and lit.

In other words, if an officer keeps their mic on stand-by when not in use, then when they activate with the 'talk' button to begin transmitting it will activate the recorder. This is useful when outside the car and not recording, and then a situation comes up and the officer needs to activate the recorder remotely to begin recording. This is only optional and should be left up to the department or officer of the vehicle.

If you hooked up the brown trigger lead to the DVR for remote activation, there is one setting that needs changed in the DVR:

Trigger REC DVR Set-up

- 1 Power on the system.
- 2 Press the '**Menu**' key on the remote.
- 3 Use the arrow keys to select '**Alarm**'.
- 4 Select '**Alarm In**'.
- 5 On the next screen on the 3rd Sensor line, Under **Enable**, change to '**ON**'
- 6 Change **Pwr** to '**Low**'.
- 7 Change **Rec** to '**ON**'.
- 8 Change **Alarm** to '**ON**'.
- 9 Scroll down to '**Save**' and select to save the changes.
(Default Password: 111111)

Black Wire (Audio Out)

- 1 Plug the male RCA plug into the female red RCA plug coming from the Camera 1 Wire Harness. (FIG 3).

Hardware: Installation

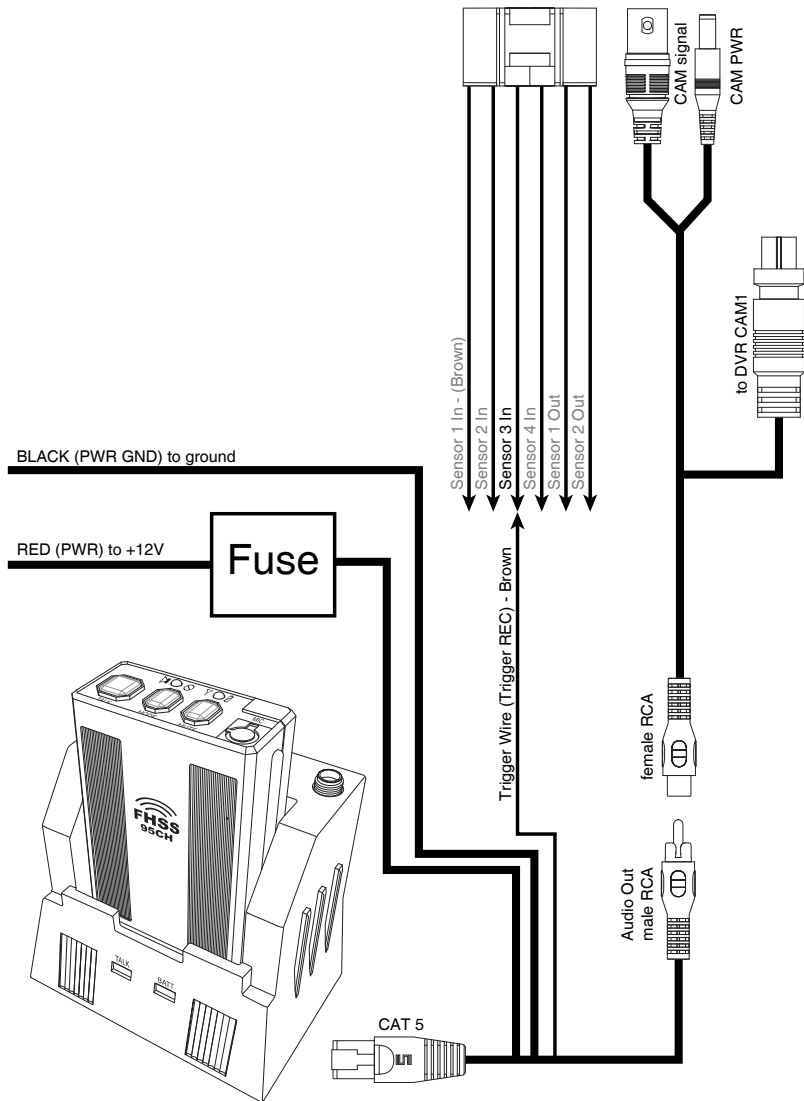


FIG. 3
2.4GHz Wireless Mic Installation

2.4GHZ Mic Antenna

- 1 Plug the antenna into the gold plug on the top of the cradle.
- 2 Secure by tightening the lock nut.
- 3 Run the wire down under the dash or other hidden location, somewhere toward the front of the vehicle.



Velcro or double-sided tape works great for securing the antennae end to a flat surface on the vehicle.

Hardware: Installation

UHF Wireless Mic

- 1 Locate a convenient spot for the wireless mic receiver (the small box with the collapsible antennas).



The location does not have to be readily accessible once it is installed so you may want to put it under a seat, or under the dash. Since it is so small and light, just Velcro it to the firewall or anywhere else that is convenient for you.



It is recommended that it be in the front half of the vehicle for the best reception.

- 2 Plug in the power lead to one of the available power leads on the DVR power harness.
- 3 Attach the two antennae to the receiver.
- 4 Locate the audio cable and plug it into the back of the receiver.
- 5 Mount the wireless receiver.



Be sure to read the wireless mic section on syncing the transmitter and receiver. If installing systems in more than one vehicle, set the frequencies two to four channels apart to allow more than one system in the same area without interference.

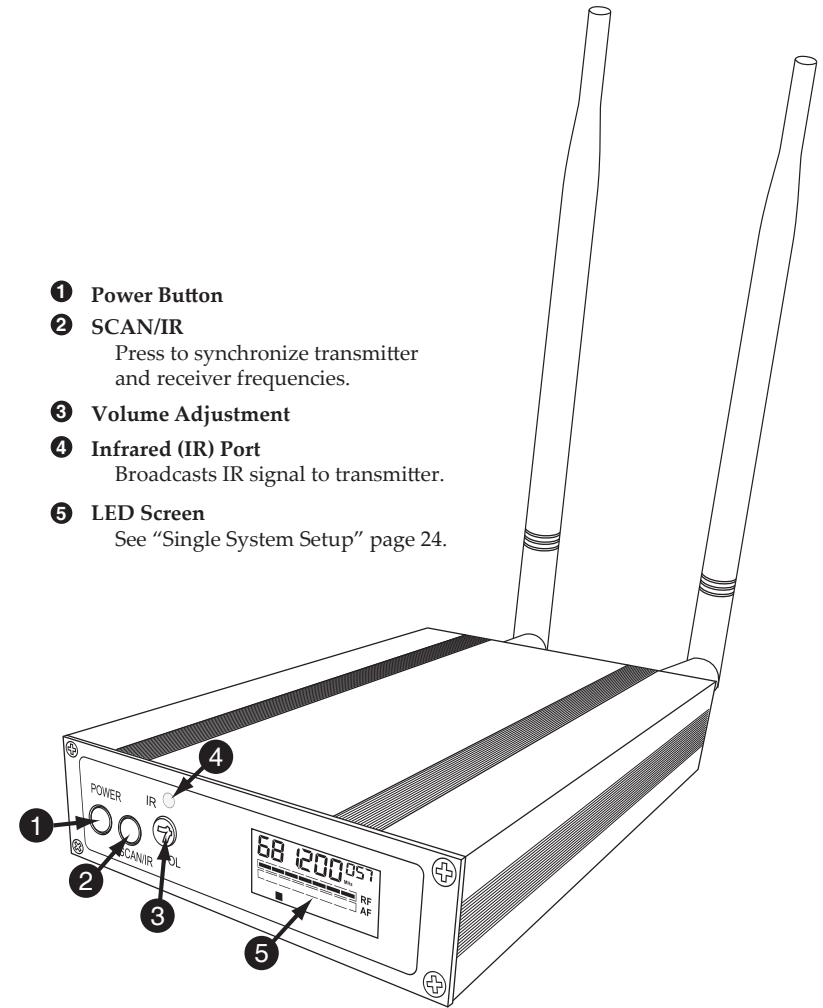


FIG. 4
UHF Wireless Receiver - FRONT

Hardware: Installation

Single System Setup

In any wireless setup, each transmitter and receiver pair must be tuned to the same frequency, or channel. The 10-8 wireless system uses *automatic transmitter setup* to synchronize the transmitter and receiver frequencies.

Automatic Frequency Selection

- 1 Press and release the **Frequency** button. (FIG. 5)

i This scans for a clear frequency and sets the receiver to that frequency.

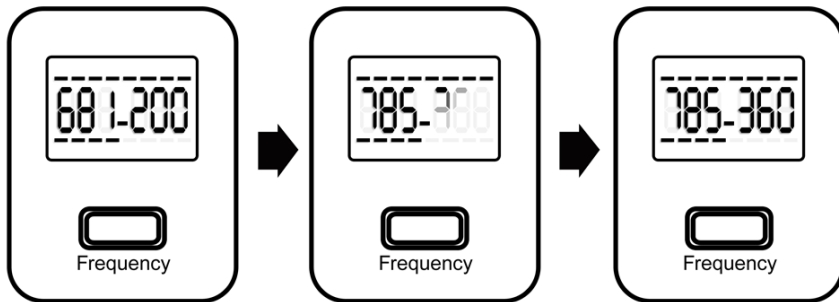


FIG. 5
Frequency Selection

- 2 Proceed to *Automatic Transmitter Setup* on the next page.

Automatic Transmitter Setup

- 1 Turn ON the transmitter.
- 2 Open the transmitter battery compartment to display the infrared (IR) port. (See page 28)
- 3 Expose the transmitter IR port to the receiver. (FIG. 6)
- 4 Press and hold the **Scan/IR** button on the receiver until the red light stops flashing on both the receiver and transmitter. (FIG. 6)

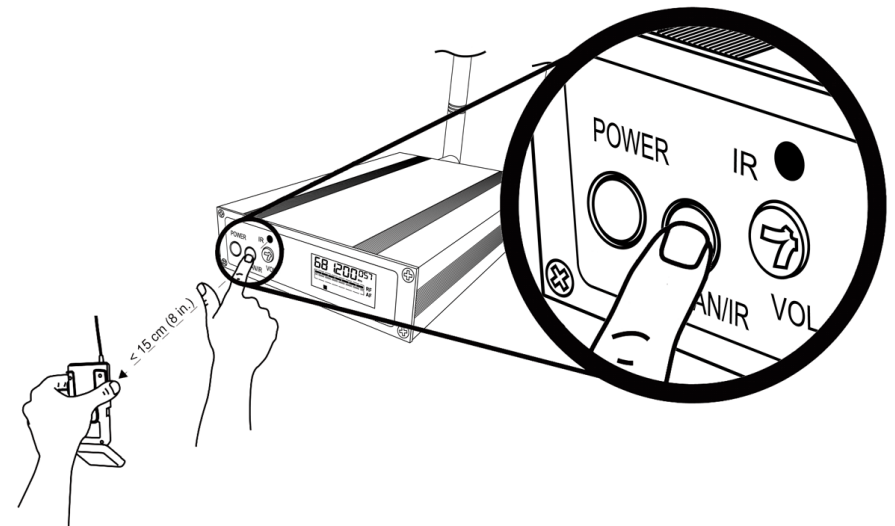


FIG. 6
Syncing the Transmitter and Receiver

- 5 When the receiver's **ready light** glows, the system is ready for use.
- 6 Close the transmitter's battery compartment.

Hardware: Installation

UHF Transmitter

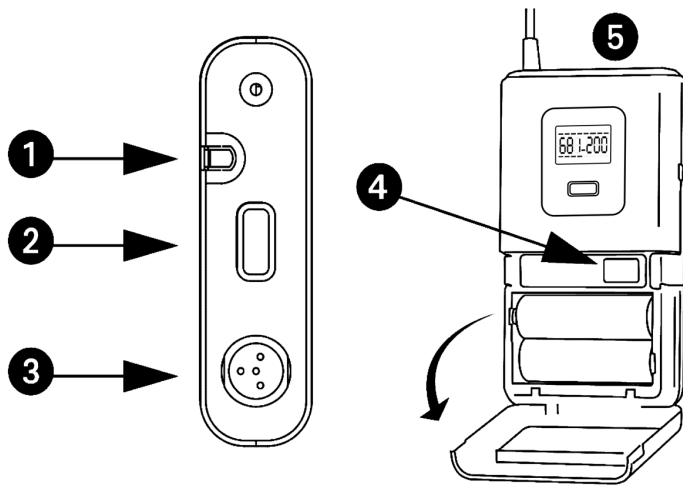


FIG. 7

1 Power / Infrared (IR)

Color & State	Meaning
Green, Solid	Ready.
Green, Flashing	Controls locked.
Red, Solid	Battery power low. (Transmitter cannot be turned off until batteries are changed)
Red, Flashing	IR transmission in process.
Red, Pulsing on startup	Batteries dead. (Transmitter cannot be turned on until batteries are changed)
Red, Pulsing after Sync.	Transmitter and receiver are incompatible; contact 10-8 Video

2 On-Off Switch

Press and hold to turn on or off.

3 4-Pin Microphone Input Jack

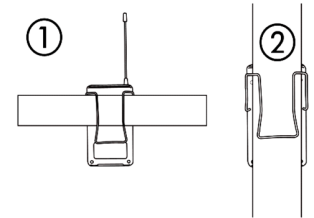
4 Infrared (IR) Port

Receives infrared beam to synchronize frequencies. When using multiple systems, only one transmitter IR port should be exposed at a time.

5 Built-in Wireless Mic

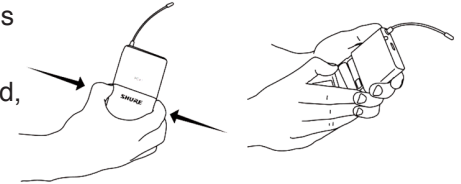
Wearing the Bodypack Transmitter

Clip the transmitter to a belt ① or slide through the transmitter clip ② as shown. If using a belt, slide the transmitter until the belt is pressed against the base of the clip.



Changing the Bodypack Transmitter Batteries

- Expected life for alkaline batteries is approximately eight (8) hours.
- When the transmitter light glows red, the batteries should be replaced immediately, as illustrated.



Use of the external mic is optional. If the external mic is not plugged into the transmitter, it will default to using its internal mic.



Rechargeable AA batteries are recommended and can be purchased locally. We recommend a 4 AA charger that will allow you to always have a charged set ready each day.

Hardware: Installation

Mirror Monitor

- 1 Mount the mirror/monitor over the existing mirror.
- 2 Run wires to DVR.



A good place to run the wires for the mirror is to tuck them in the front edge of the headliner and down the passenger side pillar post. The covers on most modern pillar posts snap in to place and are easily removed with plenty of room.

- 3 Run the wires down along the door edge and under the glove box to the location of the DVR.
- 4 Connect the *power lead* to one of the available power leads on the DVR power harness.
- 5 Plug the *yellow RCA connector* labeled 'Video1' to the *yellow RCA female connection* of the 2 leads coming from the A/V Output port.



The red audio out is generally not used as audio playback is not usually needed in the vehicle. If you wish to use the audio out, you will need to connect to a powered speaker with volume control.

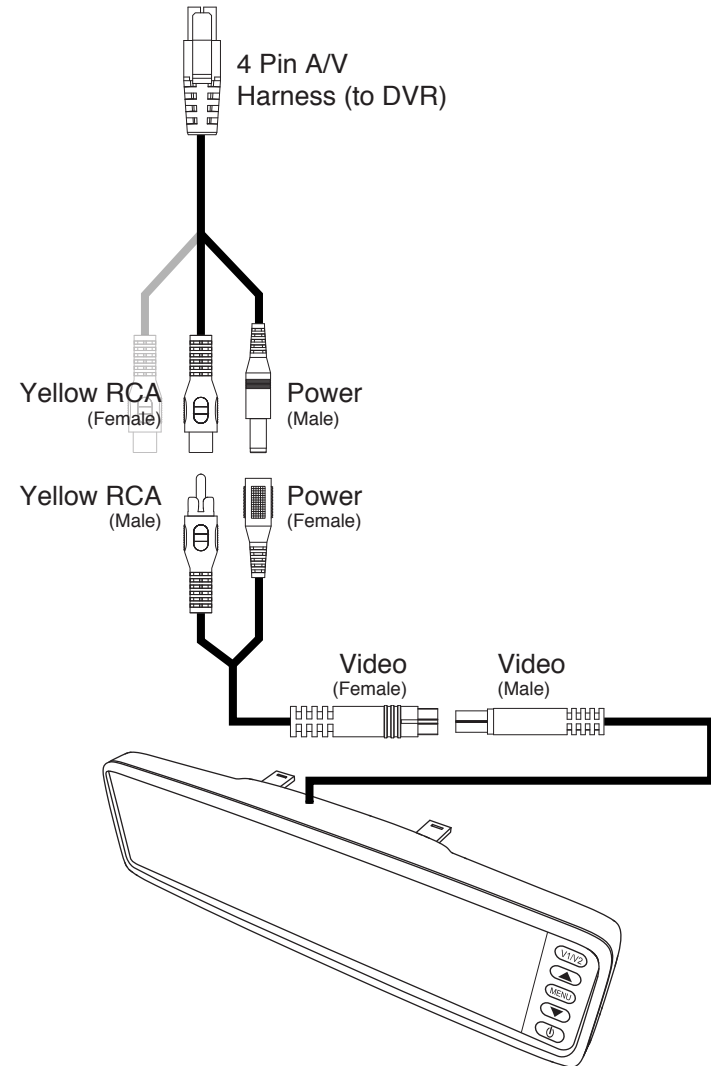


FIG. 8
Mirror Installation

Hardware: Installation

Camera Mount

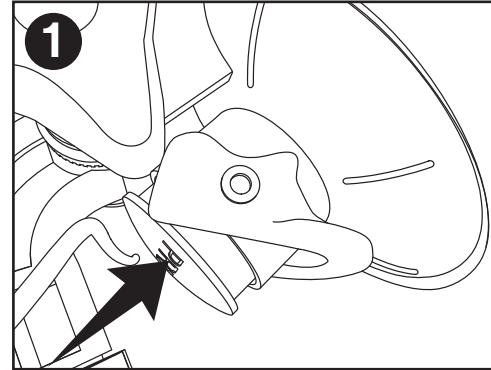
The mount is an excellent commercial mount and is very strong when properly attached to the windshield.

- 1 Locate the mounting location of the camera - high and just right of center on the windshield.

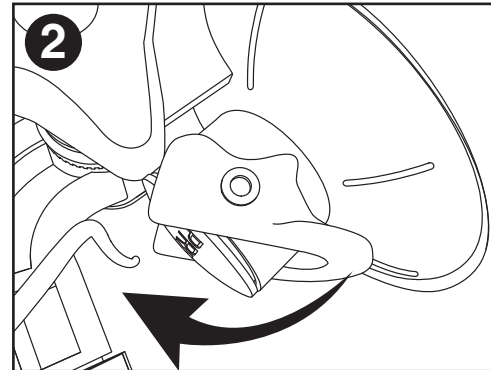
i This is normally to the rear and slightly to the right of the rear view mirror/monitor.

i Leave just enough room for the camera to rotate 180 degrees in either direction.

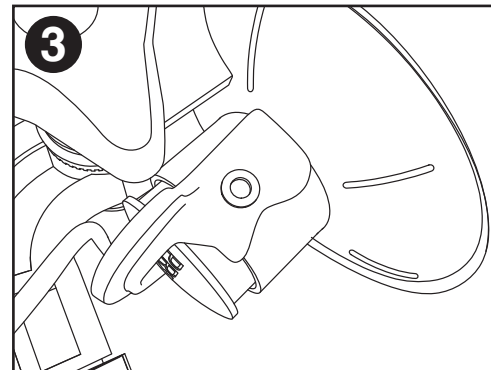
- 2 Clean the glass where the mount is to be placed.
- 3 Press in on the center button of the mount and pull the locking lever up and over the center button to lock it in place.



Press in button.



Pull lever over button.



Locked position.

Hardware: Installation

Front Camera

- 1 Run the included cable along side the mirror/monitor cable to the DVR.
- 2 Plug the *BNC video connector* from the camera to the *BNC video-in cable* from the DVR.
- 3 Connect the *power lead* to one of the available power leads on the DVR power harness.
- 4 Adjust the large locking wheel (FIG. 9) above the camera so that the camera can be rotated easily, yet stay in place while driving.

i Hold the camera firmly while adjusting the wheel.

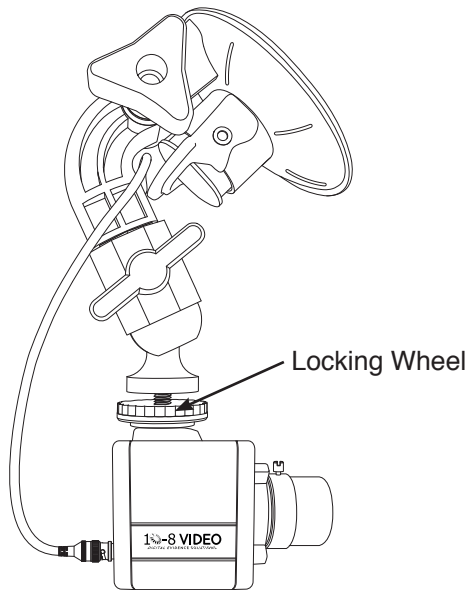


FIG. 9
Front Camera* Mount System

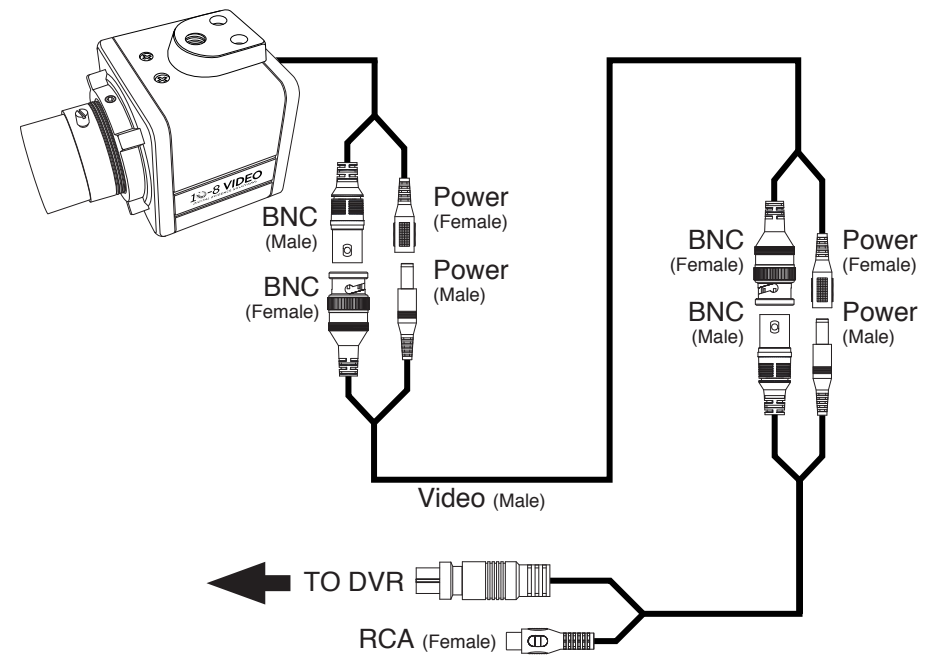


FIG. 10
Front Camera Installation

* NOTE: Actual camera appearance may vary from illustration.

Hardware: Installation

Rear Camera

The 10-8 rear camera is a true Day/Nite camera with automatic infrared and B/W functions. It also features a separate external microphone to capture sounds and conversations in the interior of the vehicle. The microphone can be placed in the console or any other convenient location for recording interior audio.

Mounting options for this camera will vary greatly from vehicle to vehicle and will depend on type of vehicle and if there is a rear divider in the vehicle. The camera is supplied with a fully articulating universal mount.



The location of the camera should give the best view of the rear/transport area of the vehicle.



If the vehicle has a cage, we suggest the camera be mounted high as possible and to one side pointing across the rear area to be viewed. If there is no cage, another choice would be high in the center of the vehicle in the front and pointing rearward, mounting just to the rear of the windshield.

Once a location has been found, run the supplied cable from the camera to the DVR. The cable will differ from the front camera as there are four (4) connections on each end instead of two (2). These additional connections (Power & Audio) are for the external microphone. Connect the cable to the 'Rear Cam' section at the rear of the DVR.



IMPORTANT: The ball mount on the rear camera has been attached at the factory. Do not attempt to tighten further. If necessary to remove and re-attach, the ball mount should be tightened only to the point where it stops in the bottom of the camera.

G-Force Sensor

The G-Force sensor is integrated into the DVR and configured at the factory.

GPS System



As long as the vehicle is in a location with a clear view of the sky and GPS satellites, you will get a reading from the GPS receiver. It can be mounted inside or outside of the vehicle.

The magnet backing is very strong for mounting on the roof. It can also be mounted in the vehicle, under the windshield.

- 1 Mount the antennae.
- 2 Route the cable back to the DVR and attach to the port labeled GPS.

The GPS receiver will display your vehicle speed and coordinates at all time on the system monitor. In addition, GPS coordinates are imbedded in all recordings made on the system. During playback on a computer, the user can elect to display a map show the actual location of the vehicle as the video is played.



After installation the G Sensor needs to be 'zeroed'. Do this by going to Menu > Vehicle > G Sensor. Highlight 'Adjust' to zero out the sensor.

Setting the GPS Speed Trigger

Locate the GPS settings by pressing the **Menu button** on the remote then selecting **Alarm > Max Speed**. It is preset to 80 MPH. When the vehicle is travelling at a rate greater than this setting, the DVR will begin to record and record as long as the vehicle is over this speed setting.

Hardware: Configuration

DVR Configuration

- 1 Insure the SD card(s) are properly inserted in the DVR unit. Slot 1 should be used first as it is the primary slot.



The additional slot is for extra storage. Each slot can accept a card up to 32GB. This gives the system a total capacity of 64GB. (2 x 32GB = 64GB)

- 2 Start the car or turn the key to the accessory position to power up the system.
- 3 Wait a few moments and the system will come on and go through a brief self test.
- 4 Align the camera for the proper view.



We recommend a slightly right of center view. This allows for a centered view of a vehicle during a traffic stop if you use a left offset during your stops.

Entering Your Information

- 1 Press 'Menu' on the remote. (FIG. 12)
- 2 Use the arrow button to scroll down and select '**System**'. Press the 'Enter' button (the button between the arrows on the remote).
- 3 Select '**Initial**' and press the 'Enter' button.
- 4 You will be prompted by a login screen. Enter the proper user and password.



If an administrator username and password has not been defined, use the defaults:
username: admin password: 111111

- 5 Scroll down and enter your information for: Company (Department), Driver (Last Name), I.D. (Unit/Badge #).
- 6 Press the 'Save' button when done to save your changes.



This is the ID that will be displayed in recordings to identify which unit made the recording. Up to 8 characters can be used here.

2nd Camera Configuration

If your department purchased the optional second camera, it needs to be activated before it is recognized by the DVR:

- 1 Press 'Menu' on the remote. (FIG. 12)
- 2 Select '**Record**'.
- 3 Select '**Channel**'.
- 4 Set '**Ch 2**' to "On" and match all of the settings used to configure Channel 1.

Hardware: Configuration

Setting Date and Time

- 1 Press **'Menu'** on the remote. (FIG. 12)
- 2 Use the arrow buttons to scroll down and select **'System'**.
- 3 Scroll and select **'Initial'**.
- 4 You will be prompted by a login screen. Enter the proper user and password.
- 5 Use the arrow buttons to scroll down to each section that you need to change.
- 6 Highlight the area to be changed and press OK button.
- 7 Change values with +/- keys and press OK again to accept.



The autotiming feature uses the GPS system to automatically sync the system time. The **'Timing Time'** is the time of day that the system performs the sync each day.



For the autotiming feature to work properly, make sure to properly set the time zone value. See Appendix A for a time zone chart.

- 8 When everything is set for your location, choose the **'Save'** button on the screen and press the **'Enter'** button on the remote.

G-Force Sensor Configuration

The G-Force sensor is integrated into the DVR and configured at the factory.

- 1 Power up the system.
- 2 Locate the menu section and select **'Alarm'**.
- 3 Find the line labeled **'G sensor'**. We recommend a setting of 2-2.5g. As you decrease this setting the G sensor will be more sensitive.

This sensor will activate the recorder when the vehicle experiences an impact or jolt that is above the setting the sensor is set at. It will continue to record for approximately 30 seconds after impact. Along with the 30 second pre-record of the recorder, this will give you a recording of approximately 1 minute.



Note that the G-Force sensor can be configured separately for each axis of movement of the vehicle. For best results, set each axis to the same value.



After installation the G Sensor needs to be 'zeroed'. Do this by going to Menu > Vehicle > G Sensor. Highlight 'Adjust' to zero out the sensor.

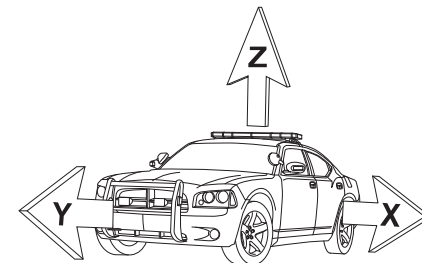



FIG. 11
G-Force Vehicle Axis

In-Car Playback

Watch Previously Recorded Events

 If you are currently recording an event, you can still playback an event without interrupting the recording.


- 1 Point the remote at the DVR and press the **'Menu'** button.
- 2 Choose the **'Playback'** icon.
- 3 Press the **'Enter'** button on the remote.

You will be presented with a screen showing a calendar and search features. This screen will automatically default to the recordings for the current day.

Viewing Today's Recordings

When you enter the Playback menu the system automatically defaults to today's recordings.

- 1 After the Playback screen loads, select the **'Search'** button on the screen.
- 2 Press the **'Enter'** remote button.
- 3 A list of events that have been recorded starting with the latest at the top will display.

 If there are more than one page of events, the right & left buttons will turn the page to reveal more events.

- 4 Use the arrow buttons to select the event you wish to watch.
- 5 Press the **'Enter'** button.

Your video will begin to play and using the remote you can Fast Forward, Fast Rewind or Pause the playback.

Viewing Another Day's Recordings

- 1 Use the calendar feature at the top of the Playback screen or use the search form to specify the day.
- 2 Select the **'Search'** button on the screen and press the **'Enter'** remote button.
- 3 A list of events that have been recorded starting with the latest at the top will display.
- 4 Use the arrow buttons to select the event you wish to watch.
- 5 Press the **'Enter'** button.

Stopping Playback

- 1 Press the **'Stop'** button to return to the event list.

DVR Remote Control

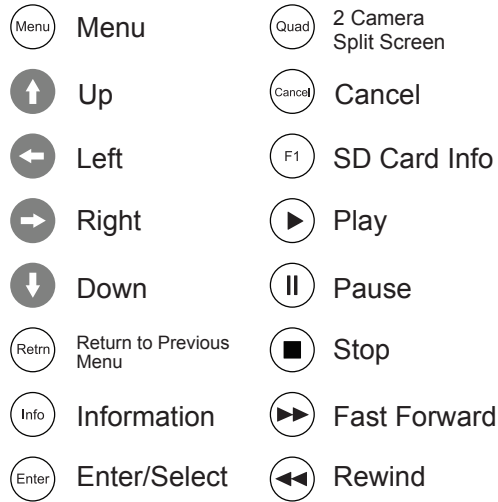


FIG. 12
DVR Remote

Camera Adjustment

There is a large wing-nut (FIG. 13) on the side of the camera mount that allows you to align the camera as needed. This adjustment should only be tightened enough to hold the camera in place while driving, but loose enough to allow the camera to be swivelled or moved as needed.

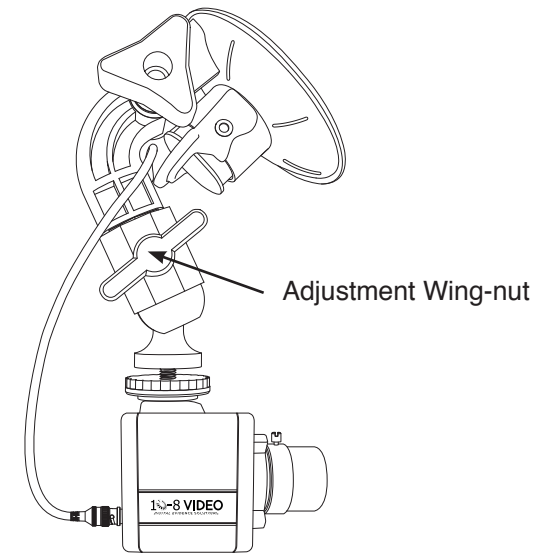


FIG. 13
Camera* Adjustment Wing-nut

* NOTE: Actual camera appearance may vary from illustration.

Entering Your Unit/Car ID

See "Entering Your Information" on page 39.

Hardware: Usage

Wireless Mic – 2.4GHZ

If your department opted for our new 2.4GHZ wireless microphone system, congratulations. This is an incredible wireless microphone with excellent range and clarity. The operation is easy and straight forward.

- As long as there is power to the cradle/receiver, and the transmitter is inserted properly in the cradle, the transmitter will charge and stay charged.
- Inserting the transmitter into the cradle will synch the frequency and channel between the transmitter and receiver.
- When the 'green' LED light is solid, the battery is charged.

Syncing Transmitter and Cradle

- 1 Slide the small switch on the bottom of the transmitter to the 'ON' position.
- 2 Insert the transmitter into the cradle to allow the units to synch.
- 3 When the transmitter is ready for use, the 'Talk' light will flash briefly.

Transmitting Audio

Pressing the red 'Talk' button switches the unit between stand-by and actively transmitting.



If your receiver was installed with the transmit sensor connected to the DVR, then activating the transmitter with the 'talk' button will also activate the recorder to begin recording.

Pressing the button again will put the transmitter in stand-by and turn the recorder off. The exception to this would be if the recorder was already activated by your emergency equipment. In this case, the recorder would continue to record but your mic transmitter would be in stand-by and not transmitting audio to the recorder.

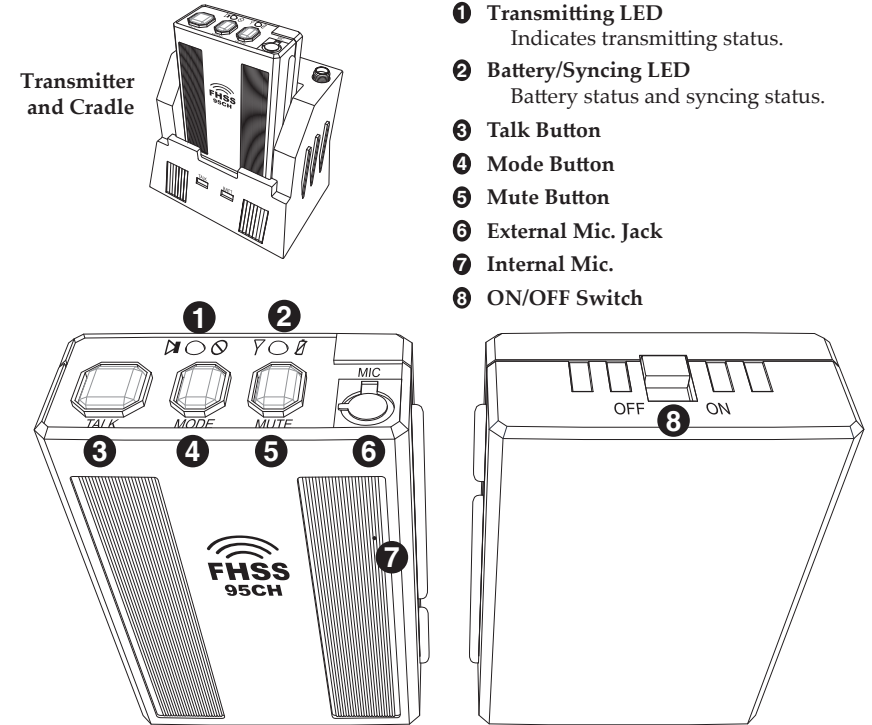


FIG. 14
2.4 GHZ Wireless Mic System

Mode Button

The Mode button cycles through 3 modes: **silent**, **vibrate & audio warning**, and **vibrate only**. This is for instances when your Mic is out of range to the receiver or has not been properly synched to the receiver.

Microphone

This unit has a built in microphone in the transmitter. For most situations, this is the only microphone you will need. However, the unit is also supplied with a wired lapel microphone. Should this mic be needed, simply plug the microphone into the top of the transmitter. This will de-activate the built in mic and audio will only be picked up by the wired mic.

Wireless Mic - UHF

The wireless microphone provided with your system provides excellent range and clarity, even while inside a building. The belt pack transmitter uses 2 AA batteries and has incredible battery life. It is the only system we have found that has an approximate 20hr battery life, as opposed to 4-6 hrs with most systems.

We recommend rechargeable AA batteries and charger be purchased from most any electronic/department store. A 4 battery system with batteries and charger can generally be found for \$10-15. At the end of each shift you can simply place the batteries in the charger when you charge your walkie.



Because of the long battery life, you can simply turn the transmitter on at the start of a shift and leave it on for the entire shift.

The audio will only record when the unit is activated, but it will prevent you from missing critical audio when something comes up and you forget to turn it on. If needed, it could of course be turned off should you not want audio to record.

The belt pack transmitter can be clipped to your belt or carried in a pocket. If you wish to put it in a pocket, you can fold the antennae to one side so that a pocket flap will close. You can then clip the microphone to a pocket or remove the clip on the microphone and place the microphone inside a pocket fold.

Microphone

This unit has a built in microphone in the transmitter. For most situations, this is the only microphone you will need. However, the unit is also supplied with a wired lapel microphone. Should this mic be needed, simply plug the microphone into the top of the transmitter. This will de-activate the built in mic and audio will only be picked up by the wired mic.

Software Installation

Install the 10-8 Player software by running the CD supplied with your system. If the CD is not available, you may download the player software from the 10-8 Video web site:

<http://www.10-8video.com/>

The player software will associate any files with the extension “.264” with itself. This will allow your to launch the player and automatically load a video file by double clicking the file’s name/icon in Windows® Explorer.

Software: Introduction

Software Overview

Use the screen capture at right to familiarize yourself with the software interface.

- Files Tab**
Allows you to browse or search for video files. This is the view shown in FIG. 15.
 - Video Tab**
This window is shown when viewing a specific video. Double-clicking on a video thumbnail in the *Files View* will launch the video in the *Video View*.
 - Log Tab**
Displays logs from the video files - allows searching and filtering of results.
 - Settings Tab**
Displays software settings and configuration.
 - Directory Section**
Opens up a Windows® file browser window to allow you to select the folder or files to review.
 - Time Range Filter**
Filters file results by date & times chosen. Use this to narrow down the files shown.
 - Event Type Filter**
Use this to narrow file listing by specific video properties.
 - File Results List (Text)**
A file list showing the results of file search and filters.
 - Recording Time Indicator**
This chart shows the time(s) of day the video file results were recorded.
 - Video Thumbnails List**
Image thumbnails from the filtered video file results. Double-click a thumbnail to view the file in the *Video Tab*.
 - Results Pagination**
Allows you to go to the next page(s) of search results.
- A** Date and Time of Recording
B Unit ID/Badge Number
C GPS Coordinates at Time of Recording

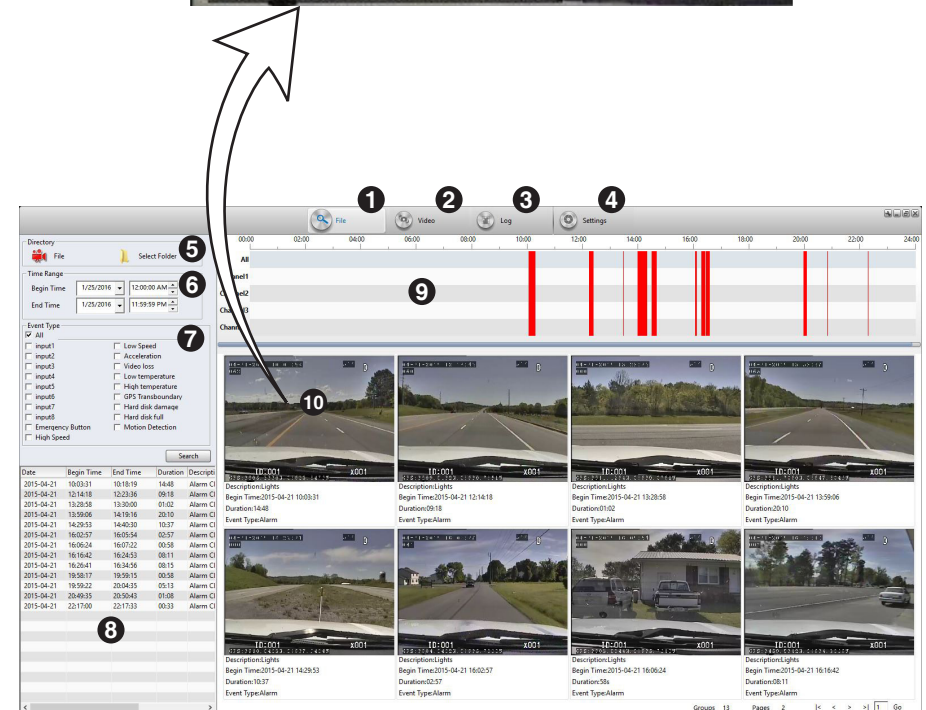


FIG. 15
Software Player

Opening A Video File

You can read files from either your hard drive, an SD Card or other external media.

- 1 Click on the **'File Tab'** (#1 - FIG 15).
- 2 Click on **'File'** or **'Select Folder'**.
- 3 The standard Microsoft Windows® file dialog window will appear.
- 4 Browse to the folder location of your file(s).
- 5 Select the file or folder containing the files you wish to view.
- 6 Click on the **'OK'** button.
- 7 All of the available files in the selected folder will appear in the **Video Thumbnails List** (#10 - FIG 15)
- 8 Double-click on the thumbnail of the file you wish to view to open and play the file.

Searching For A Video File

You can search for files via their creation date/time and event types.

- 1 Click on the **'File Tab'** (#1 - FIG 15) if you're not already in that tab.
- 2 If you wish to narrow down the search by date, use the **'Time Range Filter'** (#6 - FIG 15) section to define the date range to search.
- 3 Then choose the appropriate event types from the **'Event Type Filter'** section (#7 - FIG 15) to further refine the search.



Try to choose only the event types that you know for sure match the event video for which you are searching.

- 4 Click **'Search'** to begin your search.

Software: Usage

Video Player Overview

Use the screen capture at right to familiarize yourself with the video player interface.

- ❶ **Camera 1 View**
- ❷ **Camera 2 View**
- ❸ **Next Files Thumbnails**
This shows thumbnails of the files in the currently selected file folder. If you let the current video play to its end, the next video in this list will automatically play.
- ❹ **Google® GPS Map & Data Window**
This map displays important GPS data collected during the recording period.
- ❺ **Input Time Fields**
Use this section to jump to a specific time in the video.
- ❻ **Go To Input Time**
Clicking this will jump the video to the time input into the **Input Time Fields** (#5 FIG 16)
- ❼ **Playback Speed**
Indicates the current playback speed. Controlled by buttons "E" & "D" (FIG 16B)
- ❽ **Original Recording Date and Time**
- ❾ **Original Recording Time**
The exact time and date the current frame was recorded.
- ❿ **Playback Time**
Displays the current time relative to the length of the video. The first series of numbers is the current time in the video. The second series of numbers indicates the length of the video.
- ⓫ **Playback Slider**
Allows you drag the indicator to a specific time in the video. You can also click on the timeline to jump to a specific spot in the video.
- ⓬ **Playback Volume Slider**
Adjust playback volume level.
- ⓭ **Event Monitor Selector**
Click on "Speed", "Acceleration" or "IO" to display the corresponding data in the *Event Monitor* on the right. (#14 - FIG 16)
- ⓮ **Event Monitor**
Displays data points collected during the video recording.

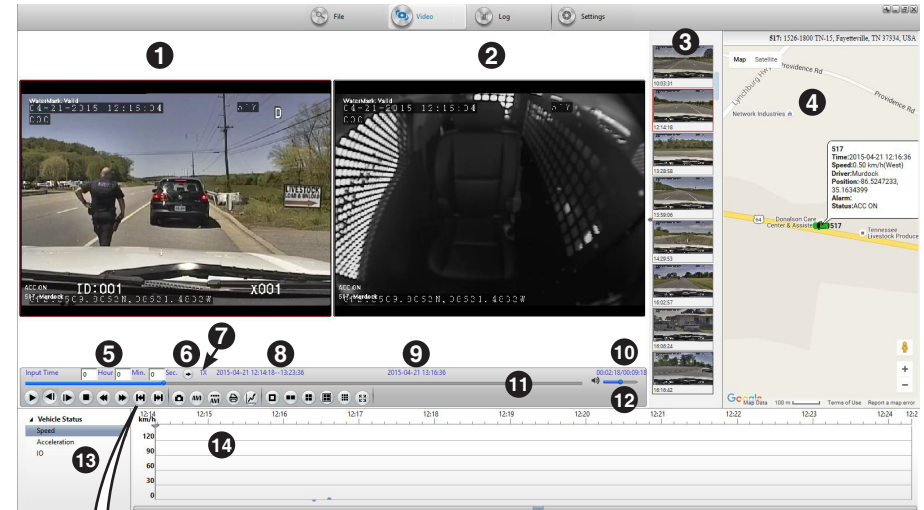


FIG. 16
Software Player

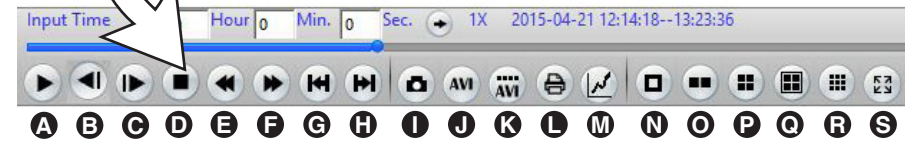


FIG. 16B
Player Controls

- | | |
|--------------------------|--------------------------|
| Ⓐ Play | Ⓚ AVI Converter 2 |
| Ⓑ Skip Back 3 Seconds | Ⓛ Generate Video Report |
| Ⓒ Skip Forward 3 Seconds | Ⓜ Video Settings |
| Ⓓ Stop | Ⓝ View Camera 1 |
| Ⓔ Slow Play Backwards | Ⓞ View Cameras 1 & 2 |
| Ⓕ Slow Play Forwards | Ⓟ View Cameras 1,2,3 & 4 |
| Ⓖ Open Previous Video | Ⓠ View Cameras 5,6,7 & 8 |
| Ⓗ Open Next Video | Ⓡ View 9 Windows |
| Ⓘ Snapshot | Ⓢ View Full Screen |
| Ⓝ AVI Converter 1 | |

Playing A File

The 10-8 Video player software is designed to be easy to use. If you have ever played a video file on a computer, then you'll feel right at ease using our software.

You can speed up, slow down, and view your videos frame by frame. You can also use the **Playback Slider** (#11 - FIG 16) under the video to quickly go forward or backward in the video.

Adjusting Playback Speed

By using the **Playback Speed Buttons** (E & F - FIG 16B), you can play back the video at a faster or slower rate than it was originally recorded. Speeds range from 64 times slower to 64 times faster than normal speed.

Adjusting Playback Volume

Use the **Playback Volume Slider** (#12 - FIG 16) to adjust the playback volume of the video file.



The software will playback the volume of the currently selected camera. For example, clicking once on the upper left screen will enable the sound for that video clip. Clicking once on the top right window will enable the sound for that video clip.

Maximizing the View of a Video Clip

Double click on the video window (#1/#2 - FIG 16) you wish to enlarge. Double clicking on the maximized window will reduce it to its original size.

Stopping Playback

Click on the **'Stop'** icon. (D - FIG 16B).

Monitoring G-Force, I/O and Speed Events

The **Event Monitor** (#14 - FIG 16) will graph and display any changes in the vehicle's G-Force along each axis (X,Y & Z) and the vehicle's speed in MPG & KPH during the recording. It also displays acceleration and any I/O events.

Using the Google® GPS Map & Data Window

The Google® GPS Map and Data Window behaves exactly like the maps located on Google's web site. Using your mouse, you can click and drag the moving the focus/center point of the map. The +/- buttons on the map will allow you to zoom in or out as needed.

The vehicle icon on the map will move along with the video you are playing. This map and icon will display the exact positions of the vehicle that made the recording.

The text box that follows the vehicle icon on the screen is displaying the date, time along with the speed of the vehicle at the time of the recording and other important data.



Your computer must have access to the internet to use this feature, as the map data is pulled from the Google® servers in real time.

Saving a Snapshot

Exporting a screen shot is easy. All screen shots are exported to JPG files - readable by every modern computer and many "Smart" devices like the iPhone®.

- 1 Use either the **'Play'** button or **Playback Slider** (#11 - FIG 16) to specify where in the video file you want to take a snapshot.
- 2 Click once on the window you want to capture. to select it.
- 3 Click on the **'Snapshot'** icon. (I - FIG 16B).
- 4 A standard Windows® dialog box will pop up allowing to you name the file to be saved and specify the location to save the file.
- 5 Click **'Save'** to save the snapshot.

Exporting Events to a Video File

Maintaining Evidence Integrity

Before discussing the ways you can save an individual event, it is important to understand how the file will be used later. If you are saving an event for court, it is highly recommended that you use the original files. The reason for this is that the 10-8 System records video in a proprietary format. This is done to maintain evidence integrity. There is no commercially available software to manipulate the videos in any way and this is the reason you want to keep videos in their original format

Exported File Format

If you do not have a need to maintain evidence integrity, you can export the videos into the standard AVI file format using the MP4 file compression codec.

Steps to Export

- 1 Click on the 'AVI' icon (J - FIG 16B).
- 2 A dialog window will pop up with the options to export the video file(s). You can alter these options to fit your needs.
- 3 Click the 'Start' button to begin the conversion.

Video Export Options

File:

Allows you to select the specific files/camera clips to export to a single file. Check the boxes you wish to export.

File Time:

Timestamp of the created file.

Time Range:

Set the beginning time and ending time of the exported clip. This will allow you to create a clip of a specific event from a larger time frame.

Select Audio:

Select which of the available video clip(s)' audio tracks to export. Since the exported video can contain more than one video window but only one audio track, you need to choose the primary audio track to use for the entire exported video clip.

The audio channel number corresponds to the channel number in the file box at the top of the dialog window.

Export Format:

Located below the 'Select Audio' section, this allows you to choose the exported file format.

Progress and Start Button

This is the progress bar that will display the overall progress of the exporting process. Clicking the start button begins the export process.

Output (Change & Open)

Clicking the 'Change' button will allow you to specify where the final exported video clip will be saved. This location defaults to the installation location of the player itself.

Clicking the 'Open' button will open a Windows® Explorer window displaying the contents of the selected location.

Target:

Final location and filename of the exported file.

Clicking the 'Open' button will open the exported file using your system's default video player.

Exporting an Event Report

You can export an event report which will allow you to create a printed detailed page of a specific moment in a video recording. You can generate as many of these reports as needed.

- 1 Set the player to display the exact moment for which you want to generate a report.
- 2 Click on the **'Report'** icon (L - FIG 16).
- 3 Fill out any notes that you wish to add.
- 4 Click the **'Print'** button to print the report.

Exporting Logs

The software allows you to search, view and export reports to Excel®.

- 1 The first step is to search for the log you wish to export via the different search options.
- 2 Choose **Log Type** - either a diagnostic or operation log.
- 3 Further refine the search by choosing any of the following that apply: **Alarm**, **Operation** or **System** logs.
- 4 If you know the date/time that the event took place you can check the "Time" check box and enter the date/time range.
- 5 Click **'Search'** to show the results.
- 6 To export a log, click once on it to select it, then click the **'Export'** button.

Software Settings

The player settings can be accessed by clicking on the **'Settings'** tab (#4 - FIG 15). Both system and user settings can be configured here.

Make sure to click **'OK'** at the bottom of the window when done to save your changes.

System Parameters

Language

Set the language used in the program's interface.

Windows

Set the default number of video clip windows displayed when the program opens.

Clear Authentication Data

???

Map Parameters

GPS Offset Correction

Corrects the placement of the vehicle icon. Due to GPS error rates, without this correction it may show the icon off road in some areas.

Show GPS Track

Enable the display of the path of the vehicle on the GPS map.

Map Type

Choose from different GPOS map providers: Google, Baidu, MapInfo and Arcgis.

Video Parameters

Watermark Verify

Will determine video is original/unedited.

Use RGB16

Not needed for modern computers. Enable this for older 16bit color systems.

Video Parameters (continued)

Overlay I/O Alarm Information

Select whether or not to display the I/O Alarm Information on the video.

Position / Horizontal / Vertical

If the **Overlay I/O Alarm Information** option is selected, this section specifies where on the video clip screen(s) it will appear.

Overlay ACC and Winker

Select whether or not to display the ACC and Winker information on the video.

Position / Horizontal / Vertical

If the **Overlay ACC and Winker** option is selected, this section specifies where on the video clip screen(s) it will appear.

Overlay Driver And Company

Select whether or not to display the driver ID and company information.

Position / Horizontal / Vertical

If the **Overlay Driver and Company** option is selected, this section specifies where on the video clip screen(s) it will appear.

Information selection overlay GPS no GPS info

Select whether or not to display the GPS information on the video.

Position / Horizontal / Vertical

If the **Information selection overlay GPS no GPS info** option is selected, this section specifies where on the video clip screen(s) it will appear.

File/User (File Associations)

This setting will associate any of the selected file formats to be opened with the 10-8 Video software when double clicked in Windows® Explorer. Below are the following file associations available:

.264

Checking this box will associate all .264 video files on the computer to automatically open with the 10-8 Video Player. **Selecting this option is recommended.**

.AVI

Checking this box will associate all .AVI video files on the computer to automatically open with the 10-8 Video Player.

.grec

Checking this box will associate all .grec video files on the computer to automatically open with the 10-8 Video Player.

.h264

Checking this box will associate all .h264 video files on the computer to automatically open with the 10-8 Video Player.

.mp4

Checking this box will associate all .mp4 video files on the computer to automatically open with the 10-8 Video Player.

User Settings

Enter a Password Authentication Login

Choose this if you want to require a username & password to use the software.

Modify Password

Use this to changes the password for the main 'admin' account.

User Management

Use this section to add/remove or change a user's name and/or password.

Archiving Video Tips

Department policies on archiving videos vary a great deal. From departments with no policies to departments with archiving requirements of 30 days to 1 year to forever!

In today's digital environment, archiving videos is much less expensive and easier than it was a few short years ago with tape based systems. As of this writing, 1 terabyte drives are less than \$100 and will store a great many videos from a lot of officers for years. Regardless of the actual time frame you wish to keep your videos, we will outline below one simple recommendation that has worked well for many departments. Of course, you are free to modify or come up with a way that works best for your department.

- 1 Decide which PC will be used for archiving.
- 2 Bring up the file system of that computer. On many systems that can easily be done by holding down the key with the 4 little squares that look like the Windows® logo and pressing the 'E' key.
- 3 Click on the drive letter that will store the videos and you will see the folders currently on that drive.
- 4 You will now want to create a 'New Folder' and then give it a name; maybe something like 'Patrol Videos'.
- 5 Inside that folder create a new folder for each officer that has the 10-8 System in their vehicle. A good name for each folder would be their vehicle or badge number.

With each officer now having a folder for their videos only, you can now establish a policy for when they archive. We recommend that you have your officer bring in their card or notify you when their system displays that they have about 10% remaining. When you have their card in hand,

- 6 Put it in your SD card reader and bring up the file system again.
- 7 Go to that officer's folder and copy the files from the SD card to his/her folder.

The system automatically creates a new folder with that day's date as the folder name for each day the system records video. This will make it easy to find a video later on when needed.

As each officer's folder grows, you can easily locate the time frame of the video by the folder name.



Do not delete or format the SD card. Just return it to the officer's vehicle and insert it back in the DVR. It will still be at 10%, but when it reaches 0% it will start back at 99% and overwrite the oldest events first. This gives you an additional backup until the files are overwritten. When it gets back down to 5-10%, just repeat the process in a new folder of that date.

Appendix A

GMT Time Zones - United States

Time Zone Name	UTC/GMT Offset
Atlantic	GMT -4
Eastern	GMT -5
Central	GMT -6
Mountain	GMT -7
Pacific	GMT -8
Alaska	GMT -9
Hawaii - Aleutian	GMT -10