860-00201-00 Rev A
November 2013

Installation Guide

DVM-LiVE™

Professional Digital Vehicle Video System and Live Streaming Gateway

DVM-LiVE
Digital In-Car Video System
Installation Guide

On behalf of the Digital Ally team, I want to thank you for this order. We appreciate the trust and confidence you have shown us.

We will strive to do everything we can to provide you with the best products, support and customer service. Please know we have a team of engineers, sales, manufacturing, customer service, accounting, technicians and support personnel who work to provide the excellent customer experience and satisfaction you demand and of which is the cornerstone of our business.

Below are a few comments and suggestions before you get started with the installation of your Digital Ally DVM-Live system:

- The DVM-LiVE is designed to be easily installed into virtually any make or model of vehicle.
- Please check the packing list against the items enclosed to make sure you have received all the items.
- Pictures of the various components of the system are shown throughout this guide to assist you.
- Please refer to the *DVM-Live Operation Guide* for operating instructions. You can print this document off of the CD you received with your order.
- The default passwords to access the DVM can be located on page 4-1 of this document.
- A system diagram is provided on page 2-5 of this document, and wiring connections chart is provided on page 2-6.

If you need any help, have any questions, or just want to provide some comments, please feel free to contact us and we will be happy to assist you. We are located in the Kansas City metro area.

Best regards,

Stanton Ross, CEO
Digital Ally, Inc.
9705 Loiret Blvd
Lenexa, KS 66219

Ph: 800-440-4947 or 913-814-7774
Fax: 913-814-7775
Email: support@digitalallyinc.com
Website: www.digitalallyinc.com

Table of Contents

Section - 1: Before you Begin

This document references the installation of the DVM-LiVE system, external cameras, and the cabling harnesses.

Tools Needed

- ✓ #2 Phillips head screwdriver
- ✓ #20 Torx screwdriver or bit
- ✓ 1/8" (4 mm) flat-blade screwdriver
- ✓ Digital Volt Meter
- ✓ Tie wraps

Cautions and Notes

Please read and follow the instructions and precautions in this installation guide when installing DVM-LiVE product.

- For assistance, a qualified installation technician or mechanic should be consulted.
- Do not use excessive force when removing the mirror from the windshield. The mirror mounting plate may become separated from the windshield and/or the windshield may break if excessive force is used. If you are unfamiliar with rearview mirror removal seek professional assistance.
- Do not route wiring and cabling over sharp metal edges where they may become damaged or cut.
- To prevent electrical shorts or breakage in the wiring and cabling, do not allow wiring and cabling to be pinched behind trim pieces, panels, or other physical objects.
- Do not run wires or cables in areas where they may become damaged by heat from the engine or the exhaust system.
- Do not install any DVM components or wiring in the deployment path of the air bag(s).
- When installing the cables or making wire connections, it is recommended you leave a little 'slack' in the cable connections to allow for service loops and for movement of the mirror so the connections do not get pulled or accidentally disconnected.
- Where possible, avoid running cables parallel to other wiring and/or antenna coax that may be installed in the vehicle.
- Where possible, do not leave excessive cable above the headliner. We recommend at least 2 feet of distance between our cabling and that of other systems which may carry a signal for transmit and/or receive

Standard Parts Kit

Part Number		Description
001-00049-32		DVM-Live Package, 32GB
566-00127-00		Camera, CAM-10XC, 10x with built-in controls
008-01468-00		Cable, DVM-LiVE to 10xC Camera and Gateway
002-05095-00		Wireless Mic, DVM-LiVE System
008-01455-00		Cable, DWM-800 to DVM-LiVE
004-09058-00		Cable, Back Seat Microphone to DWM-LiVE, 20ft. 2.5mm plug
001-00010-00		Wi-Fi Assembly
006-08210-00		IO box (model IFE-20)
008-01388-00		Vehicle Power to IO box Cable 3.1m (10.1ft.)
008-01386-00		IO Box to DVM Power Cable 2.5m (8.0ft.)
008-01362-00		IO Box RJ45 Sensor Cable 7.6m (25ft.)
008-01410-00		GPS Module
001-00500-00		2 Channel Live Video Streaming Gateway
860-00202-00		Quick Reference Guide
006-08255-00		Visor Mount For external front Camera
008-01419-25		BNC cable 25ft (2)

Optional Parts List

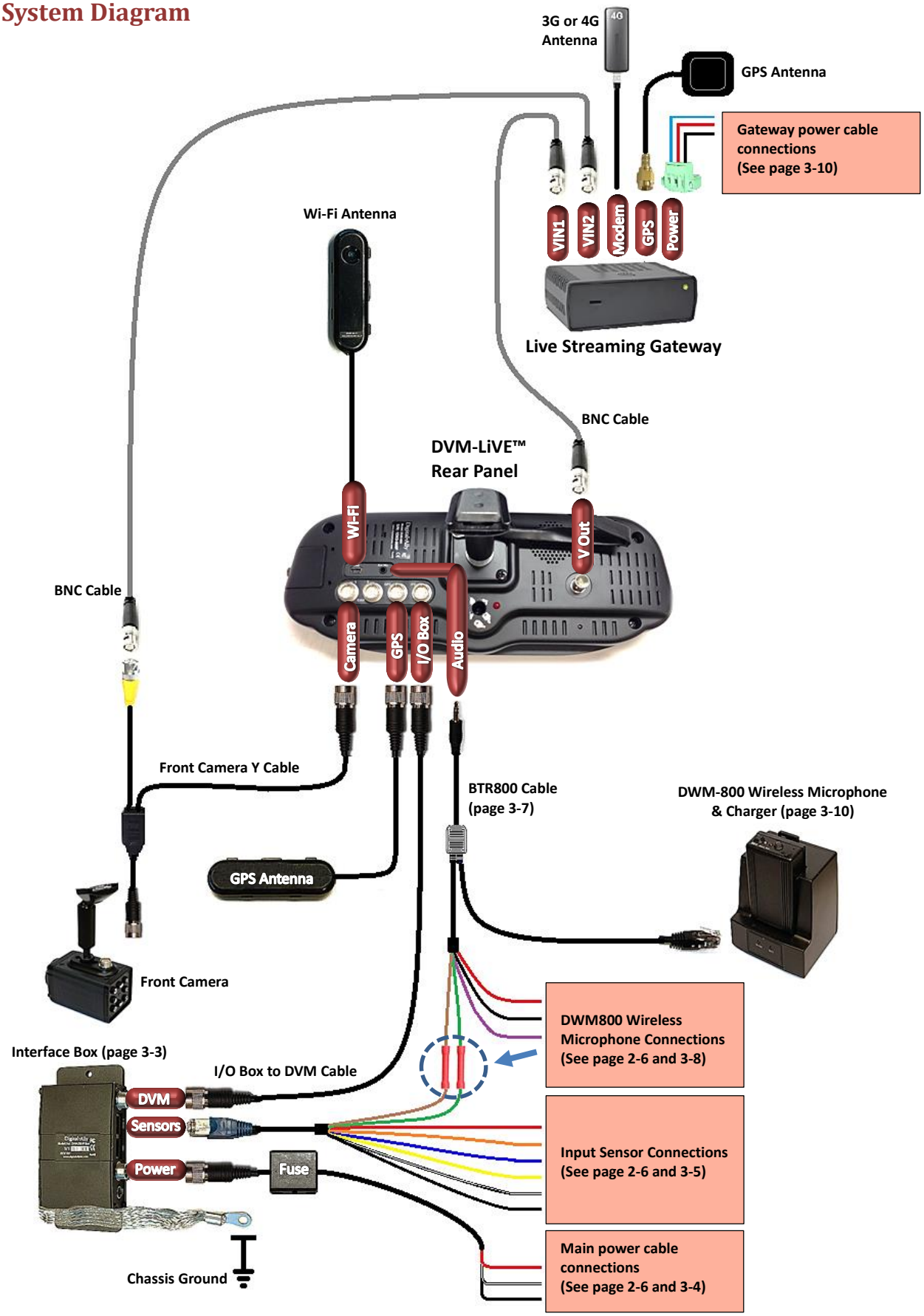
Part Number		Description
008-01386-01 008-01386-02 008-01386-03		IO Box to DVM Power Cable 4.6m (15ft.) IO Box to DVM Power Cable 6.1m (20.0ft.) IO Box to DVM Power Cable 8.1m (26.5ft.)
566-00038-00		License Plate Backup Camera (includes mounting screws, pigtail cable, center mount & side mount license plate brackets)
566-00040-00		Aux Surface Mount Backup Camera Normal Image (includes mounting h/w & mounting bracket)
008-01390-01		Backup Camera Cable 12.2m (40.0ft.)
008-01382-00 008-01382-01 008-01382-02 008-01382-03		Backup Camera 25ft Extension Cable Backup Camera 40ft Extension Cable Backup Camera 60ft Extension Cable Backup Camera 15ft Extension Cable
006-08193-00		Assembly, DVM-250 Camera Switch Box
008-01464-00		Cable, RJ45 to 18AWG
002-00028-00		SD Card Reader
363-00050-00		32GB External SD card
740-00388-00		Panel Mount Remote Activation Switch
740-00399-00		Footswitch, Maintained (18/2AWG, 6ft, bare leads)
002-05107-00		Terminal Block Kit (for input sensors)

002-05030-00		Drop Mount Adapter
002-05102-00		Kit, Big Ball Mount Adapter
002-05112-00		Windshield Mount Adapter Kit, Dodge Charger
001-00501-00		4 Channel Live Video Streaming Gateway
860-00151-00		VuVault™ Stand Alone Software DVD
860-00152-00		VuVault™ Server/Client Software DVD
860-00153-00		VuVault™ Enterprise Software DVD

DVM Layout Configuration

1	**LCD Display***:* Used for viewing video.
2	**Internal microphone**: Records audio from the passenger compartment.
3	**Manual Record key**: This key is used to start/stop a manual event recording when pressed.
4	**Status Indicators** (Passenger facing & Road facing): These visible indicators give the operator feedback on the operational status of the DVM.
5	**Infrared Illuminators**: Automatically provides Infrared illumination for the passenger facing camera during low light conditions.
6	**Passenger facing camera**: Records video of the vehicle passenger area
7	**Ambient Light Sensor:** Senses ambient light to automatically adjust LCD brightness
8	**Menu and Playback Buttons:** Used to navigate the DVM menus, play back videos, and log into the system.
9	**External SD Card** *(optional):* An optional external SD card can be installed behind the external SD door. The SD card is installed at a slight angle and positioned with the connector pads as shown above.
10	**External SD door**: Provides access to the external SD card.
11	**External Camera 1 Port**: An external camera can be connected to the DVM with this port.
12	**USB Port:** For data transfer and Wi-Fi download
13	**External Camera 2 Port**: Reserved for future use
14	**External GPS Port:** The supplied GPS antenna is connected here.
15	**Power port**: This port is used to provide power to the DVM or can be used to attach the interface box to the system.
16	**Reset Button***:* Used to perform a hard reset of the system.
17	**BNC Video Output**: Connects to the Streaming Gateway video input.
18	**External Audio Input:** The DWM-LiVE audio cable is connected here.

System Diagram



Wiring Connections Chart

Input Signal	*Color*	*Pin #*	*Description*
Main Power Cable (page 3-4)			
Battery	**Red**	1	+12VDC Un-switched Power. REQUIRED. Digital Ally recommends connecting directly to the engine compartment battery
Ignition	White	2	+12VDC Switched. +12V power only when ignition is in the ACC or On position. Ignition is used to cycle the system power on and off.
Ground	**Black**	3	Chassis Ground. Secure directly to vehicle frame
Input Sensor Cable (page 3-5)			
Reverse	**Red**	1	Connect to reverse gear relay, or reverse light bulb
Emergency Lights	**Orange**	2	Emergency Light interface. +12VDC when lights are activated. Connect to light bar controller
Brakes	**Blue**	3	Connect to brake pedal switch or 3rd brake light. +12VDC when brake is active
Siren	Yellow	4	Connect to +12VDC when siren is ON.
Sensor 5	White	5	Configurable input sensor
Mic Trigger Out	**Green**	6	Connect to Green wire of DWM800 Wireless Microphone Cable
Mic Trigger In	**Brown**	7	Connect to Brown wire of DWM800 Wireless Microphone Cable
Ground	**Black**	8	Chassis Ground
DWM800 Wireless Microphone Cable (page 3-8)			
Battery	**Red**	1	+12VDC Un-switched Power. Digital Ally recommends connecting directly to the engine compartment battery
Ground	**Black**	2	Chassis Ground
Mic Trigger Out	**Green**	3	Connect to Green wire of Input Sensor Cable
Mic Trigger In	**Brown**	4	Connect to Brown wire of Input Sensor Cable
Remote Accessory Out	**Violet**	5	Connect to auxiliary equipment (optional connection)

Section - 3: Installation Instructions

Step 1: Factory Mirror Removal

The current factory rearview mirror must be removed from the windshield mounting plate. There are several versions of mirror mounting systems. Below are the most common methods of rearview mirror removal. If you are unfamiliar with rearview mirror removal, seek professional assistance.

Be very careful and do not use excessive force when removing the mirror from the windshield. The mirror mounting plate may become separated from the windshield and/or the windshield may break if excessive force is used.

Use one of the following methods that match the mirror mounting configuration of your vehicle:

Screw Mount Rearview Mirror Removal

1. Using a Philips screwdriver or #20 Torx bit, loosen the screw in the base of the mirror.
2. After loosening the screw, gently lift upward to slide mirror off of mirror mount.

Wedge (screw-less) Mount Rearview Mirror Removal

1. Using a small 1/8" (4 mm) flat-blade screwdriver, insert the flat end into the opening at the bottom of the mirror mount next to the windshield.
2. Slide the screwdriver into the center of the mirror mount until resistance is felt.
3. Gently apply a small amount of additional upward force to lift away the locking spring inside the mount.
4. While still applying upward pressure with the screwdriver, grasp the mirror bracket and wiggle side to side. Lift the mirror up toward the headliner and off the windshield mount button.

Cam Lock Rearview Mirror Removal

1. With your right hand, grip the mirror and keep it stabilized.
2. With your left hand, grip the base of the factory mount where it meets the glass.
3. Apply a small amount of inward pressure toward the glass and rotate the base clockwise.
4. The spring loaded factory mount should release from the windshield puck. See picture below.

Step 2: DVM Installation

1. Slide the new rearview DVM (Digital Video Mirror) onto the existing windshield mounting plate and secure your DVM to the vehicle windshield. For some 2011 - 2013 Dodge vehicles, attach and orientate the optional adapter to factory windshield as shown. Use Loctite™ to secure the adapter to the factory windshield mount. If needed, attach optional drop down bracket as shown.

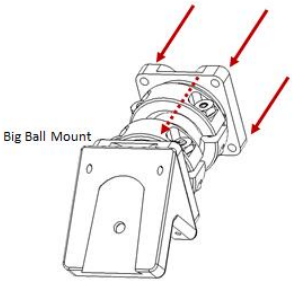
2. Use a #20 Torx screw driver to tighten the mounting screw.
3. Adjust the viewing angle for the rearview mirror.

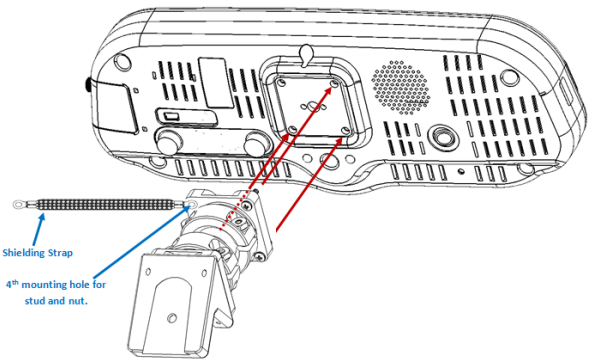
In some vehicles, the position of the manufacturer's windshield mounting plate may not allow for proper rearview DVM adjustment for some individuals, especially when the vehicle is equipped with an overhead console and/or interior emergency lighting. In these cases, the mounting plate included with the DVM-LiVE package must be glued to the windshield in a location that will allow proper adjustment. Loctite #03346 glue is recommended. Please follow instructions on their package

4. The unconnected end of the DVM shielding strap must be securely connected to the vehicle chassis. The strap should be routed and attached to the metal structure above the windshield.

The shielding strap must be connected to a metal surface of the vehicle chassis to prevent EMI and RF interference. Failure to properly connect the shielding strap may cause system operation issues.

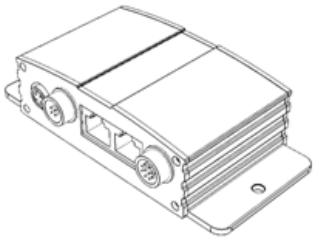
5. If the optional Big Ball Mount Kit (002-05102-00) was purchased, attach to the DVM as shown below. Do not over tighten the hex locking screws in the middle of the Big Ball mount or the DVM may break off the windshield when adjusted. Follow the instructions included in the kit.





6. Remove the protective film covering from the internal Passenger facing camera.

Step 3: Interface Box Installation



Interface Box

The Interface Box (IO Box) must be securely mounted on a solid area of the vehicle structure in a moisture free location where it can be easily accessed.

Possible mounting locations include:

- Under the dash on the passenger side.
- Behind the kick panel on the passenger side (or driver side).
- Screwed into the transmission tunnel sheet metal below the dash. On some vehicles this may not be possible due to extreme heat radiated from the transmission.
- Screwed into the exterior of the center console.
- Under the seat on some SUV-type vehicles.
- Behind a panel on the right hand side of the dash (nearest to the door).

Do not place the IO box directly on floorboard or mount it in areas where it could be exposed to moisture such as air conditioner condensation, accidental liquid spills, rain, snow, mud, or other elements that could be tracked into the vehicle from outside the vehicle.

Do not place the IO box in an area that will subject the unit to excessive heat such as a transmission tunnel or engine firewall.

Mount the IO box

1. Use the *IO Box to DVM cable* as a gauge to estimate an appropriate location for mounting the IO box.
2. Once a suitable mounting location has been identified for the IO box, verify that the shielding strap can be securely connected to the metal surface of the vehicle chassis. If the shielding strap does not reach a suitable metal surface, reposition the IO box appropriately.

3. Secure the unconnected end of the shielding strap to the vehicle chassis.

The shielding strap must be connected to a metal surface of the vehicle chassis to prevent electrical interference. Failure to properly connect the shielding strap may cause system operation issues.

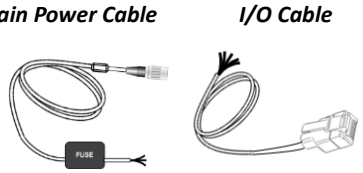
DVM to Interface Box Cable Installation

1. Plug the connector of the IO box to DVM cable into the back of the DVM.
2. Leaving slack in the cable at the mirror mounting bracket for DVM adjustment, begin routing the cable from the DVM under the front edge of the headliner down the windshield pillar towards the mounting location for the IO box. To conceal the cable, it may be necessary to loosen the sun visor mounting bracket and/or other trim pieces to allow the cable to be tucked in behind the headliner.

Do not route wiring and cabling over sharp metal edge. Avoid running the cable parallel to other wiring and/or antenna coax from other equipment in the vehicle. To prevent electrical shorts or breakage in the wiring and cabling, do not allow wiring and cabling to be pinched behind trim pieces, panels, or other physical objects.

3. Secure the cable using Velcro or standard tie wraps as required.
4. Plug the remaining end of the DVM cable into the IO box.

Step 4: Power, Ground, and Input Sensor Connections



Power Cable Installation

1. Plug the connector of the Vehicle Power cable into the IO box.
2. Route the cable to a suitable location for electrical connection.
3. Remove 4 to 5 inches of the outer jacket at the bare end of the power cable. Separate the braided shield from the individual conductors, attach an electrical terminal to the end of the braided shield, and attach the terminal to the chassis of the vehicle.
4. Connect the **Red** wire of the power cable to the vehicle +12Vdc battery terminal and the **Black** wire of this power cable directly to the vehicle's chassis. It is required that the power wire be tied in with DVM interface box connection with no obstructions to battery such as a cutoff switch or charge guard system.
5. Connect the **White** wire to the ignition switch where +12vdc is only present when the vehicle ignition key is in the ON position.

Figure 3-4: *Power Connections*

Pin	Connection	Wire Color
1	**POWER** Connect to +12vdc battery terminal	**RED**
2	**IGNITION** Connect to +12Vdc ignition switch	**WHITE**
3	**GROUND** Vehicle Chassis	**BLACK**

6. Secure the cable and the inline fuse housing using Velcro or standard tie wraps as required. The cable contains a filter to help minimize unwanted RF noise and 3 amp fuse.
7. Re-connect the cable to the connector on the back of the DVM.

I/O Cable Installation

The IO Box provides multi-purpose sensor inputs that allow external devices to trigger an event record in the mirror. It also provides an Output Alarm to turn devices on or off when an event trigger occurs. The output alarm is also used to trigger the RMT-800 wireless microphone during a record event. Common external sensors include; emergency lights, siren, brake pedal, turn signal indicators, reverse gear, covert foot-switch, or door sensors.

Determine the Device Trigger(s) Signal Level

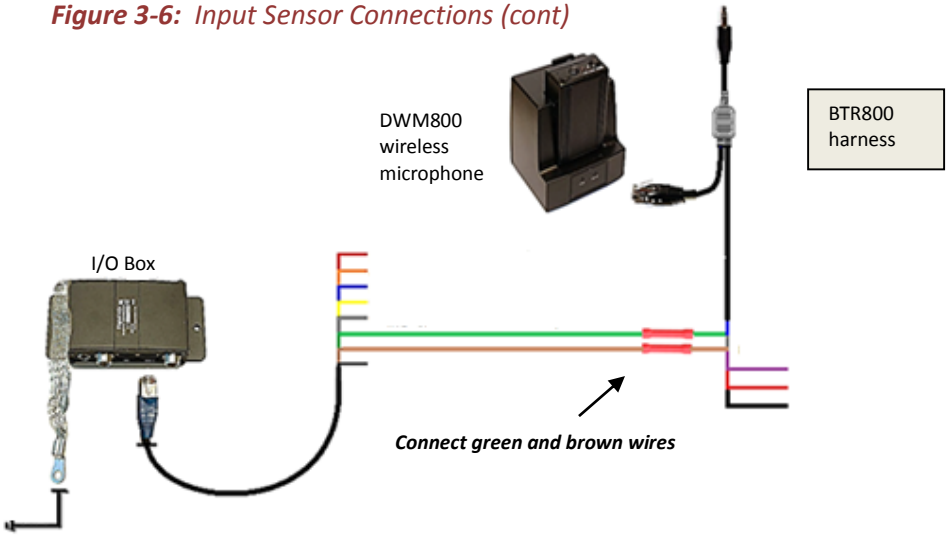
For the administrator to configure each of the six (6) multi-purpose input sensors, the signaling from the external device must be found and documented. Determine the signaling of each external device that will be used and document the signal information on the Sensor Worksheet that has been provided on page 7-1.

1. Position RJ-45 end of the sensor cable near the IO box RJ-45 jack, but do not plug it into the IO box just yet.
2. Leaving a service loop for connection to the IO box, begin routing the un-terminated end of the sensor cable to the desired location in the vehicle for connection for each of the input sensor devices.
3. Cut off excess cable as required, and strip the cable jacket from the un-terminated end of the sensor cable to access the individual wires.
4. Use ***figure 3-5*** below for wiring connections to the sensor cable and connect the external devices to the appropriate wire of the RJ-45 sensor cable.
5. The GREEN and BROWN wires are reserved for the DWM-800 wireless microphone system. Connect the wires as shown in ***figure 3-6*** to ensure microphone activation functions correctly. Use butt splice connectors to attach the green and brown wires.
6. When all external devices have been connected, plug the RJ45 into the jack labeled "SENS A" on the IO box.

Figure 3-5: *Input Sensor Connections*

Pin	Sensor	Wire Color
1	**REVERSE** Reverse Gear Sensor	**RED**
2	**LIGHTS** Connect to +12Vdc Light Bar output	**ORANGE**
3	**BRAKES** Connect to +12Vdc Brake switch	**BLUE**
4	**SIREN** Connect to +12Vdc siren output	**YELLOW**
5	**Sensor #5** Configurable input	**WHITE**
6	**MIC trigger out** Connect to GREEN wire of DWM-800 harness (see figure 3-10)	**GREEN**
7	**Mic Trigger in** Connect to BROWN wire of DWM-800 harness (see figure 3-10)	**BROWN**
8	**GND** Connect to vehicle chassis	**BLACK**

Figure 3-6: *Input Sensor Connections (cont)*



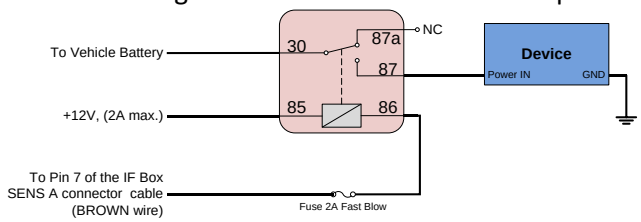
Output Alarm Trigger

In addition to activating the DWM-800 wireless microphone, A DVM-LiVE can be configured to activate or deactivate an auxiliary device when an event record begins. Below is a general outline showing how the Output Alarm Trigger can be wired using an interposing relay.

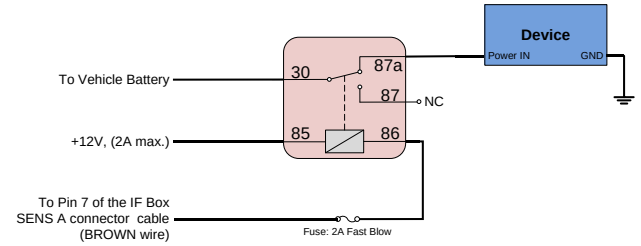
The device, relay, and fuse are optional customer provided items. Be sure to select a relay which can handle the power requirements of your device.

Example wiring diagrams:

1. **Activate during Event Recording:** To activate low power devices when an Event Trigger is active, the example diagram below shows how to connect it to the IO box. When the Output alarm is active the relay will be energized and the device will be powered on. If the Output Alarm is not active, the relay will not be energized and the device will not be powered.



2. **De-Activate during Event Recording:** To de-activate low power devices when an Event Trigger is active, the example diagram below shows how to connect it to the IO box. When the Output alarm is active the relay will be energized and the device will not be powered. If the Output Alarm is not active, the relay will not be energized and the device will be powered on.

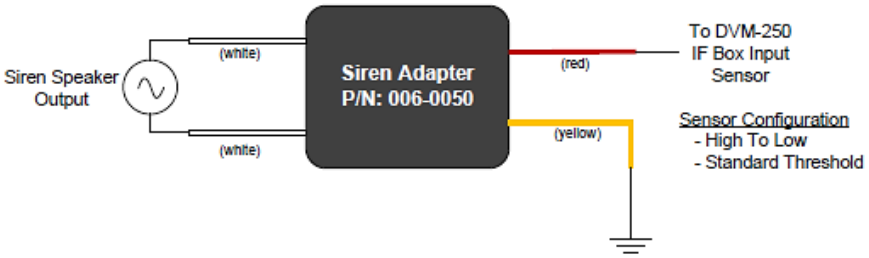


RJ45 to Terminal Connector Adapter (optional)

If heavier gauge and jacket wiring is required, an optional terminal connector adapter kit (P/N 002-05107-00) is available for purchase from Digital Ally. The adapter allows customer provided wire to be used for wiring sensors from the vehicle to the IO box. For more information and installation instructions, refer to the *Terminal Block Kit Installation Instructions* included with the kit.

Siren Adapter Interface

If an acceptable DC output cannot be obtained from the siren controller, the optional siren adapter interface (Digital Ally P/N 006-0050) can be used to connect the siren speaker to the interface box. Follow the diagram below to install the siren interface.

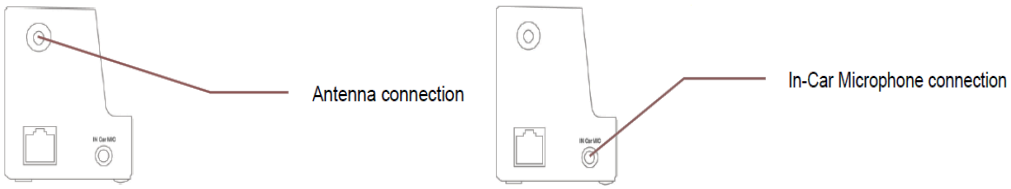


When using the siren adapter, *the input sensor must be configured for a High to Low, Standard Threshold within the VuVault device configuration.*

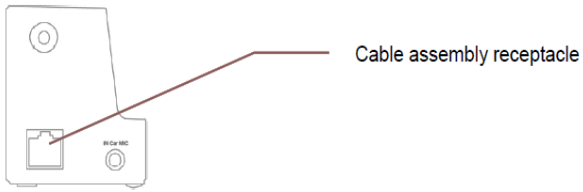
Step 5: Wireless Mic Installation

1. Attach the mounting bracket to the back of the BTR (base transceiver cradle); the assembly can then be mounted at your preferred location, such as the side of the center console.

2. Attached the antenna. If you are using the optional external In-Car Microphone, connect it to the BTR In-Car Microphone jack and route the microphone to your preferred location in your system. The typical mounting location for the external in-car microphone is in the rear seat area along the headliner & below the weather strip.



3. Connect the BTR cable assembly to the RJ-45 input on the BTR.



DWM800 Wireless Microphone Cable Installation

Carefully route the BTR800 cable to the back of the DVM. Make the following connections listed in figure 3-8.

Figure 3-8: *BTR800 Cable Input Connections*

Connection	Wire Color
POWER Connect to +12vdc battery terminal	**RED**
GND Connect to vehicle chassis	**BLACK**
REMOTE ACCESSORY OUT Connect to auxiliary equipment (optional connection)	**VIOLET**
MIC trigger out Connect to GREEN wire of DWM-800 harness (see figure 3-6)	**GREEN**
MIC trigger in Connect to BROWN wire of DWM-800 harness (see figure 3-6)	**BROWN**

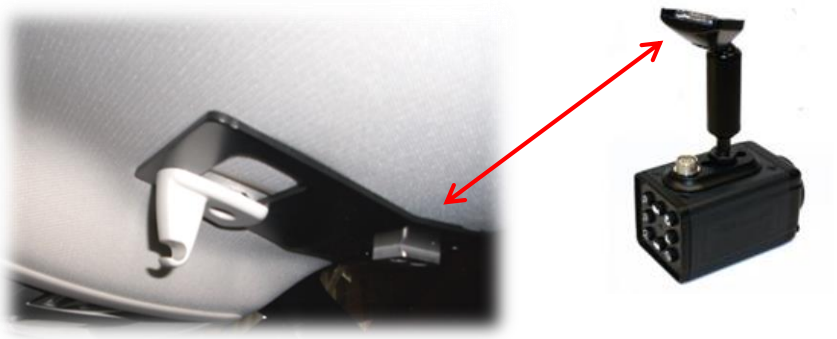
4. Connect the **mini a/v jack** to the audio input jack on the back of the DVM. Be sure to leave enough slack in the cable to allow for movement of the mirror.

Pressing the Emergency button on the wireless microphone will activate the +12vdc remote accessory output signal (if connected), but will not trigger a record event.

Step 6: Front Camera Installation

Front Camera

1. Attach the visor mount through the visor clip and attach front camera to the mounting plate.
2. Attach the camera cable (008-01442-00) to the DVM-LiVE Camera 1 input.



Step 7: GPS Antenna

Clean the windshield glass with alcohol. Screw in the GPS antenna to the port on the back of the DVM. Using the included double-sided tape, attach the antenna to an unobstructed location on the windshield below the roofline. Do not place the GPS antenna near any other vehicle antenna.

Step 8: Wi-Fi Antenna

Clean the windshield glass with alcohol. Plug the Wi-Fi antenna into the USB port on the back of the DVM. Using the included double-sided tape, attach the antenna to an unobstructed location on the windshield below the roofline away from the GPS antenna.

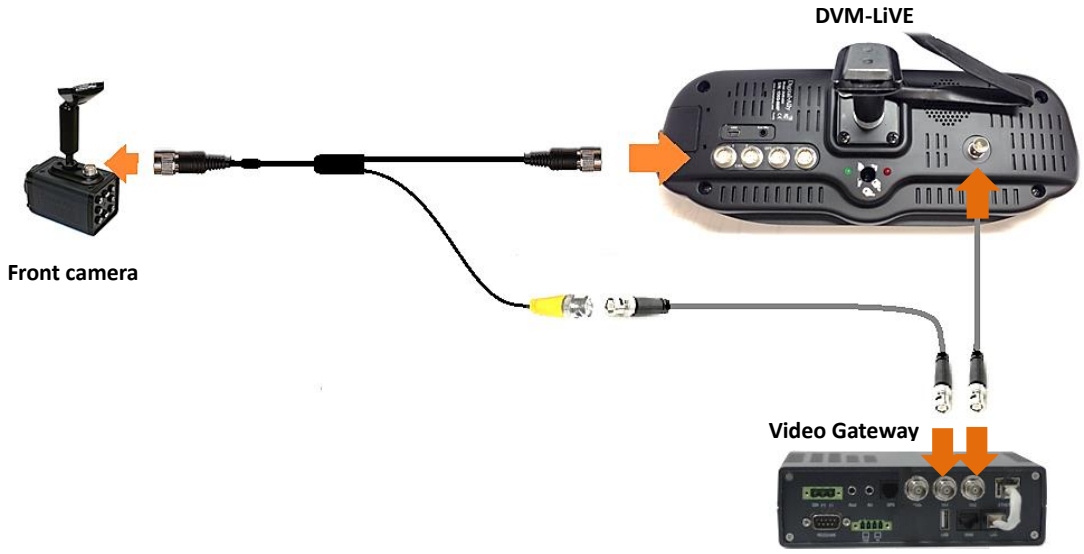
Please refer to the *DVM-LiVE Operation Guide* for configuration of the wireless transfer feature.

Step 9: Live Streaming Gateway

Video Connections

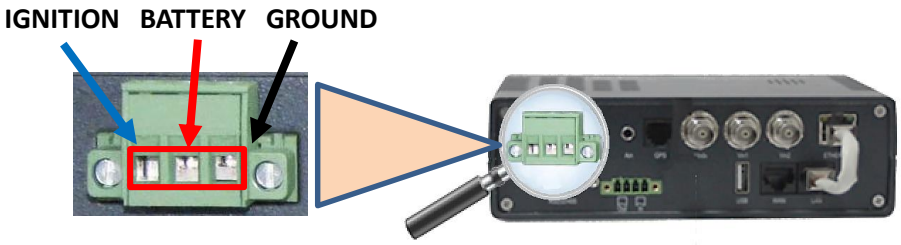
1. Determine a suitable location for the live streaming gateway. Do not mount the gateway module in an area exposed to moisture.
2. Attach the front camera pigtail cable to the gateway Vin2 input using a supplied BNC cable.
3. Attach the video output from the rear panel of the DVM-LiVE to the Vin1 input of the streaming module using a supplied BNC cable.

Figure 3-10: *gateway video connections*



Power Connections

4. Connect Ignition, Battery, and Chassis Ground to the green power connector as shown below.



Antenna Connections

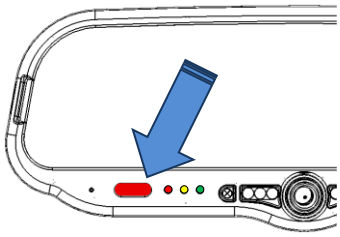
5. Connect the supplied GPS receiver cable to the **GPS** connector on the rear of the unit.
6. Place the antenna as high up as possible in the vehicle or on the roof of the vehicle. Make sure the antenna is horizontal and is facing up (smaller side up), and attach it in its intended location with double-sided tape. Make sure the antenna is attached securely to the vehicle so that it will not come loose when the vehicle moves. If possible, place it in a location near the roofline in which there are no obstructions between it and the sky. DO NOT place the GPS antenna in close proximity of the other GPS antenna you installed previously in step 7.
7. A cellular modem is required for live video streaming capabilites. Connect your cellular modem with USB adapter to the USB port. Use a USB extension cord for connecting the cellular modem to the unit. The modem functions best if it is installed high in the vehicle in an exposed location. The extension cord should not be longer than about 1.5 meters. Please note that not all cellular modems are supported. Please contact Digital Ally Technical Support for a list of supported cellular modems.

Section - 4: Testing the Installation

Initial Power Up

1. Insert the SD card into the DVM.
2. Turn the vehicle ignition switch to the ON position. The vehicle does not have to be running.
3. The DVM will begin the boot-up process; all 3-LEDs will flash in unison at a 1 second interval until boot up is complete.
4. Once the boot-up process is complete, the Blue LED will be lit indicating the DVM is powered on, is ready, and in standby mode.
5. Login to the DVM using the up/down arrows. The default administrator password is 111111, the default user password is 222222. Press the Ms button to save your entry.

Record an Event



1. Press the RECORD button.
2. The Red status indicator will illuminate to indicate the manual event is being recorded.
3. After 10 seconds, press the RECORD button to stop the manual event record.
4. The Red status indicator will extinguish, indicating the DVM has returned to standby mode.

Viewing the Backup Camera (if installed)

1. Start the vehicle and leave the transmission in Park.
2. Apply the brake and put the transmission into Reverse gear.
3. The LCD monitor will turn on and the live-video from the backup camera will be displayed.
4. If configured as an event trigger, the Red status indicator will illuminate indicating the back-up event is being recorded.
5. Put the transmission back into Park.
6. The LCD monitor will turn off.

Input Sensor & Wireless Microphone Tests

1. Remove the wireless microphone from the charging cradle and turn the power switch ON. The Green LED should be lit solid.
2. Activate a connected trigger input device (such as emergency lights) to start a recording.
3. The Red status indicator on the DVM will flash to indicate the event is being recorded, and the Green LED on the wireless microphone should start blinking.
4. Press the record button on the DVM to stop the recording.
5. The Red status indicator will extinguish, indicating the DVM has returned to standby mode.
6. Press the REC button on the wireless microphone. The system should again start to record as previously in step 3.
7. Press the record button on the DVM to stop the recording. A power down timer will start when the vehicle's ignition is turned off.

Section - 5: Support

How to Reset the DVM-LiVE System

Using a small blunt object such as a small eye-glass screwdriver or a paper clip, press the reset button on the DVM. The reset button is recessed and located on the road facing, driver's side of the housing as shown here.

Basic Troubleshooting

Symptom	Resolution
System will not power up.	• Verify the power cable connector is connected to the back of the DVM. • Check the power cable fuses located in the in-line fuse housing on the power cable. • Verify there are no breaks, pinches, or cuts in the wiring or cable harness. • Check the wiring and voltage levels to the vehicle power and ignition switch wiring.
All LEDs are flashing rapidly in unison	• DVM is configured to use an external SD card and the SD card is missing. • The external SD card does not have enough free available storage for uploading the events from internal memory. Replace the external SD card with a blank SD card.
DVM powers up but doesn't record	• Check the LED status indicators and clear accordingly • Reset the system.
DVM powers up and goes directly to an event record (Red LED Flashes)	An event record has been triggered from either an internal sensor or from an IO box: • Disconnect the Sensor Cable RJ-45 connector from the IO box and reset the DVM. If the problem doesn't re-occur, check the wiring from the vehicle to the sensor cable. • Check the DVM configuration parameter values for all internal sensors and/or IO box sensors.
DVM is unresponsive	• Verify the cables and cable connections. • Verify power input voltages to the IO box (page 3-4) • Press the reset button on the back of the DVM.
False Triggering of Event Recordings	• Determine which trigger is causing the false trigger by viewing the event recording. • The unit can be reconfigured to default settings and enable each trigger to determine which one is causing the false trigger. • If the Accelerometer is causing false triggering, verify the mirror is in the normal rearview mirror orientation.
Wireless Microphone does not trigger the DVM to record	• Verify the cable connections on page 3-8. Verify the BTR800 is receiving power and the microphone is synced to the system. Verify device configuration in the VuVault software.

Section - 6: Contact Information

9705 Loiret Blvd

Lenexa, KS USA 66219

Website: www.digitalallyinc.com

Support E-Mail: support@digitalallyinc.com

Sales E-Mail: sales@digitalallyinc.com

Phone: 00-1-913-814-7774

Fax: 00-1-913-814-7775

Sales / Support Toll Free: 00-1-800-440-4947 8am-5pm CST

Section - 7: Interface Box Sensor Worksheet

Date: _____ **DVM Serial #:** _____

Vehicle #: _____ **Description:** _____

To configure an input sensor, the signaling of the device must be given to the administrator. Measure the DC voltages, record the signal levels, and provide the information to the administrator.

Device Type/Description (Note IO box input harness wire color used)	Measured DC Voltage	
	Inactive State (Vdc)	Active State (Vdc)
Reverse Gear Signal - *RED*	*(Park)*	*(Reverse)*
Emergency Lights - *ORANGE*		
Brakes - *BLUE*		
Siren - *YELLOW*		

Installer to complete upper section

Administrator to complete lower section

Sensor Wiring Assignment

Wiring assignment assigned by administrator

Sensor	Wire Color	Connection	Signal to Input Sensor *(administrator use)*	
			Detection Type	Threshold
Sensor #1	**RED**	Reverse Gear	☐ Low to High ☐ High to Low	☐ Standard ☐ High
Lights	**ORANGE**	DC output from light bar controller	☐ Low to High ☐ High to Low	☐ Standard ☐ High
Brakes	**BLUE**	Brake switch or 3rd brake light	☐ Low to High ☐ High to Low	☐ Standard ☐ High
Siren	**YELLOW**	DC output from siren controller	☐ Low to High ☐ High to Low	☐ Standard ☐ High
Sensor #5	**WHITE**	Configurable	☐ Low to High ☐ High to Low	☐ Standard ☐ High
Wireless Microphone	**GREEN**	MIC trigger out **green** wire of DWM-800 harness		
RMT Trigger IN	**BROWN**	MIC trigger in **brown** wire of DWM-800 harness		
GND	**BLACK**	Chassis ground		