

DVM·250 Series

DVM-250Plus

Digital In-Vehicle Event Recorder Video System

Installation Guide



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Section - 1: Before you Begin

This document covers the installation of the DVM-250Plus system only, including the Interface Box (if required) and the cabling.

Tools Needed

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

Cautions and Notes

Please follow the instructions and precautions in this installation guide when installing the DVM-250Plus.

- 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 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 components or wiring in the deployment path of the air bags.
- 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.

Section - 2: DVM-250Plus Parts and Accessories

Included Parts and Accessories

The table below outlines the items that are included with the following DVM-250Plus Packages:

001-00090-00; DVM-250Plus, IF Box (Auxiliary Cameras Ordered Separately)











001-00091-00; DVM-250Plus, IF Box (Auxiliary Cameras Ordered Separately), 3-Year FleetVu Cloud Service & VEDR Warranty






001-00092-00; DVM-250Plus without IF Box

001-00093-00; DVM-250Plus without IF Box, with 3-Year FleetVu Cloud Service & VEDR Warranty

001-00094-00; DVM-250Plus, IF Box, Surface Mount Backup Camera, Side Mount Camera & Camera Switch

001-00095-00; DVM-250Plus, IF Box, Surface Mount Backup Camera, 3-Year FleetVu Cloud Service & VEDR Warranty

| Part Number | Description | 001-00090-00 | 001-00091-00 | 001-00092-00 | 001-00093-00 | 001-00094-00 | 001-00095-00 |
|--------------|--|--------------|--------------|--------------|--------------|--------------|--------------|
| 006-08271-31 |  DVM-250Plus, Main Unit w/32GB Internal Memory | X | X | X | X | X | X |
| |  3-Year FleetVu Cloud Service | | X | | X | | X |
| |  3-Year VEDR Warranty | | X | | X | | X |
| 363-00076-00 |  SD Card, 16GB, External | X | X | X | X | X | X |
| 002-05146-00 |  DVM Mount Assembly | X | X | X | X | X | X |
| 002-05168-00 |  Accessory Kit: Includes Windshield Puck, Lanyard, Mounting Hardware, Tamper Resistant Security Screw and Key Kit | X | X | X | X | X | X |
| 860-00112-00 |  Quick Start Guide | X | X | X | X | X | X |
| 008-01410-00 |  GPS Module | X | X | X | X | X | X |
| 001-00010-20 |  Wi-Fi Module | X | X | X | X | X | X |
| 008-0100 |  USB-A to Mini-B Cable | X | X | X | X | X | X |

| Part Number |  | Description | 001-00090-00 | 001-00091-00 | 001-00092-00 | 001-00093-00 | 001-00094-00 | 001-00095-00 |
|--------------|---|---|--------------|--------------|--------------|--------------|--------------|--------------|
| 008-01384-00 |  | Cable, Vehicle Power to DVM 4.7m (15.4ft) | | | X | X | | |
| 006-08214-01 |  | IF Box, IFE-20 | X | X | | | X | X |
| 008-01386-02 |  | Cable, IF Box to DVM 6.1m (20.0ft.) | | | | | X | X |
| 008-01388-00 |  | Cable, Main Power to IF Box 3.1m (10.1ft.) | X | X | | | X | X |
| 008-01464-00 |  | Cable, Sensor, IF Box, RJ45 | X | X | | | X | X |
| 566-00134-00 |  | Surface Mount Backup Camera. With Smart IR LEDs and Reversible Image Switch. | | | | | X | X |
| 008-01390-01 |  | 40ft Backup Camera Cable | | | | | X | X |
| 008-01390-00 |  | 20ft Backup Camera Cable | | | | | X x2 | |
| 002-05099-55 |  | 2-Camera Auxiliary Switch Box V2 | | | | | X | |
| 566-00150-00 |  | Camera, Fender or Side- Mounted Rear-Facing. Adjustable for left or right side mounting. | | | | | X | |

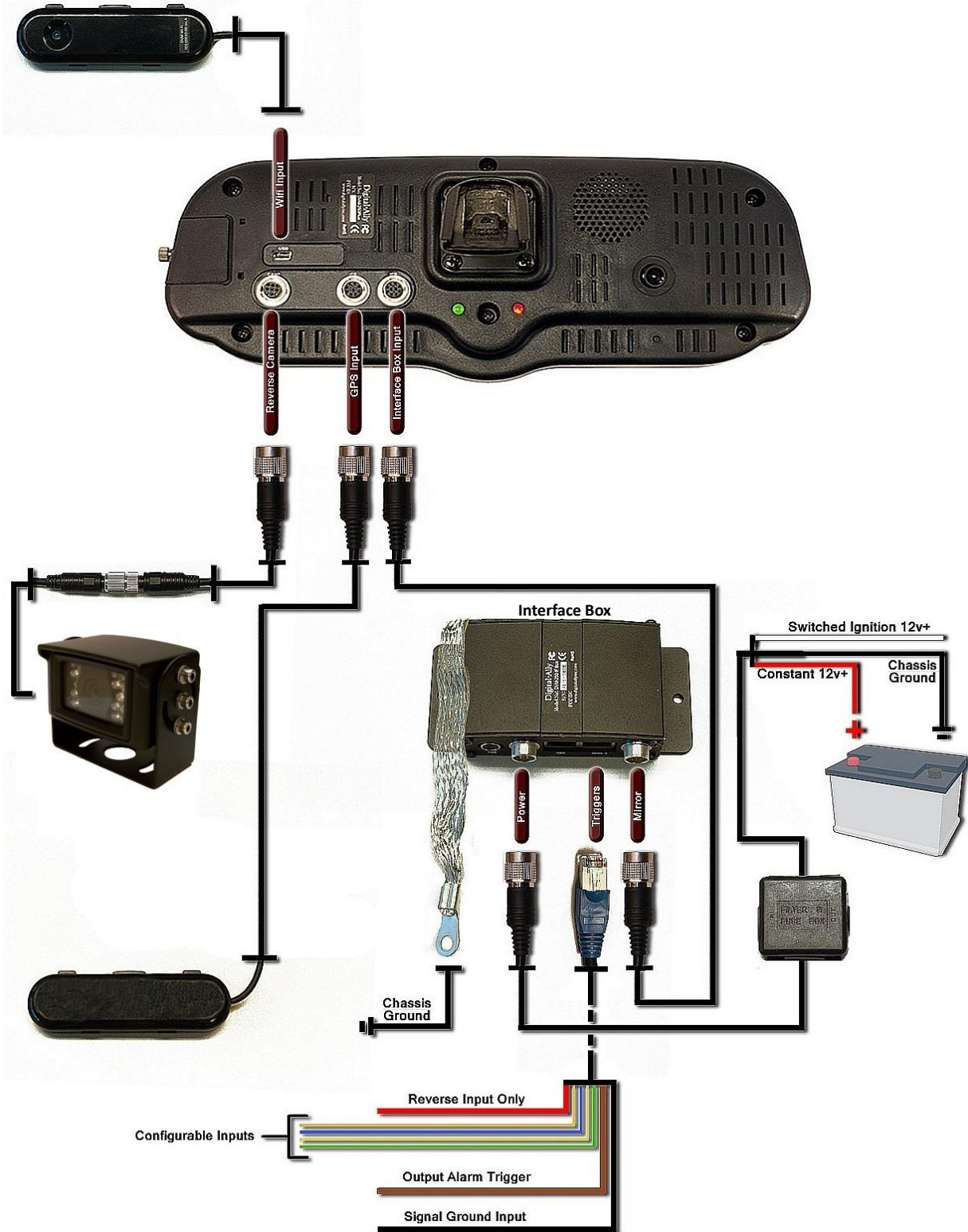
Optional Accessories

This table below outlines optional accessories for the DVM-250Plus.

| | | |
|--|---|--|
| 008-01382-00 008-01382-01 008-01382-02 008-01382-03 |  | Backup Camera 25 ft Extension Cable Backup Camera 40 ft Extension Cable Backup Camera 60 ft Extension Cable Backup Camera 15 ft Extension Cable |
| 008-01386-00 008-01386-01 008-01386-02 008-01386-03 |  | Cable, IF Box to DVM 2.5m (8 ft) Cable, IF Box to DVM 4.6m (15 ft) Cable, IF Box to DVM 6.1m (20.0ft.) Cable, IF Box to DVM 8.1m (26.5 ft) |
| 363-00050-00 |  | SD Card, 32GB, External |
| 566-00141-00 |  | License Plate Backup Camera. With Adapter Cable. |
| 566-00144-00 |  | Mini Backup Camera. With Adapter Cable. |
| 566-00143-00 |  | Camera, Low Profile Side Mount Adjustable for right or left side mounting. With Adapter Cable. |
| 566-00158-00 |  | Camera, Flush Mount. With Angle Adjustment Rings and Adapter Cable. |
| 002-05153-00 |  | 4-Camera Auxiliary Switch Box V3. With Adapter Cable. |
| 002-00028-00 |  | SD Card Reader for PC |
| 740-00388-00 |  | Panel Mount Remote Activation Switch |
| 740-00399-00 |  | Foot Switch, Maintained (18/2AWG, 6 ft, bare leads) |
| 002-05030-00 |  | Drop Mount Adapter |
| 002-05123-00 |  | Windshield Mount Adapter Kit, Dodge Charger |
| 006-08267-00 |  | Windshield Mount Adapter Kit, Dodge Sprinter |
| 006-0050 |  | Siren Interface Adapter |
| 001-00075-00 |  | Output Alarm Beeper Indicator Kit |

Section - 3: Installation Instructions

DVM-250Plus Basic Wiring Diagram



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 below that matches 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 (Screwless) 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. Carefully 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. Remove the protective film from the:
 1. Mirror glass
 2. Road facing camera
 3. Passenger facing camera.
2. Slide the new rearview DVM (Digital Video Mirror) onto the existing windshield mounting plate and secure your DVM to the vehicle windshield. For some Dodge vehicles, attach and orient 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. A special mounting adapter is also available for certain Dodge Sprinter vehicle models.



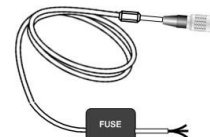
3. Use a #20 Torx screw driver to tighten the mounting screw.
4. Adjust the viewing angle for the rearview mirror.

Note 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-250Plus 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.

5. 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.

CAUTION 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.

6. If an Interface Box (IF Box) will be installed, skip to #16. Then proceed forward to Step 3 (Interface Box Installation).
7. If no external sensors are required, an IF Box is not required. If an IF Box will not be installed, continue to the next installation instruction.
8. Place the connector end of the Vehicle Power cable in proximity to the mating connector on the back of the DVM. Do not plug the cable in at this time.
9. Leave enough slack in the cable as a service loop for the rearview mirror adjustment.
10. Begin routing the cable under the front edge of the headliner and down the windshield pillar to the desired location for connection to vehicle power. 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.



CAUTION Do not route wiring and cabling over sharp metal edges. Where possible, avoid running the cable parallel to other wiring and/or antenna coax that may be 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 objects.

11. Secure the cable and in-line fuse housing using Velcro or standard tie wraps as required. The cable contains a 3 amp fuse and a filter to help minimize unwanted RF noise.
12. 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.
13. The Red wire of the DVM power cable should be connected to the vehicle +12VDC and the Black wire of this power cable connects 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.

Note

It is recommended that these connections are made directly to the engine compartment battery wiring harness for best results. These wires should be used ONLY for the DVM system and not be tapped into for installation of any other equipment in the vehicle. Doing so, could result in possible radio frequency interference from the other equipment.

14. Connect the White wire to the ignition switch where +12VDC is only present when the vehicle ignition key is in the ON position.



Do not connect the White wire directly to the vehicle battery. For proper operation this wire must be connected to the vehicle ignition switch.

15. Re-connect the cable to the connector on the back of the DVM.
16. Install the GPS Module and WiFi module:
 1. Use full length of cable to locate the GPS module away from the DVM in the upper right or left corner of windshield, outside of the black shaded area.
 2. Do Not mount the GPS and WiFi module:
 - a. In the headliner
 - b. Under metal
 - c. Within 1 foot of each other
 3. Clean the windshield glass with alcohol and use the supplied tape to attach the GPS module and WiFi module to the windshield.



Step 3: Interface Box Installation

Interface Box

Note: If external triggers are not being used, proceed to "Section - 4: Testing the Installation"

The Interface Box (IF 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.
- 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 IF 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.



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



Do not drill into any hoses or wiring that may exist below the mounting screws.

Mount the IF Box

1. Use the IF Box to DVM cable as a gauge to estimate an appropriate location for mounting the IF Box.
2. Once a suitable mounting location has been identified for the IF 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 IF Box accordingly.
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 IF 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 IF 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.

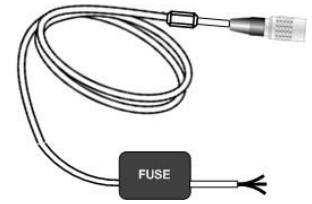


Do not route wiring and cabling over sharp metal edge. Avoid running the cable parallel to other wiring and/or antenna coax from other equipment in the vehicle. To prevent electrical shorts or breakage in the wiring and cabling, do not allow wiring and cabling to be pinched behind trim pieces, panels,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

3. Secure the cable using Velcro or standard tie wraps as required.
4. Plug the remaining end of the IF Box to DVM Cable into the IF Box.

Interface Box Power Cable Installation

1. Plug the connector of the Vehicle Power cable into the IF 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 and the Black wire of this power cable connects directly to the vehicle's chassis or a ground wire. It is preferred 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.



Note *It is recommended that these connections are made directly to the engine compartment battery wiring harness for best results. These wires should be used ONLY for the DVM system and not be tapped into for installation of any other equipment in the vehicle. Doing so could result in possible radio frequency interference from the other equipment.*

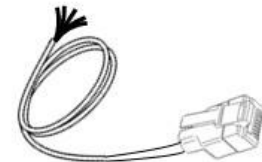
5. Connect the White wire to the ignition switch where +12VDC is only present when the vehicle ignition key is in the ON position.

CAUTION *Do not connect the White wire directly to the vehicle battery. For proper operation this wire must be connected to the vehicle ignition switch.*

6. Secure the cable and the inline fuse housing using Velcro or standard tie wraps as required. The cable contains a 5 Amp fuse and a filter to help minimize unwanted RF noise.
7. Re-connect the cable to the connector on the back of the DVM.

Step 4: Interface Box External Trigger Wiring

The IF 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, or to activate a beeper alarm when specified accelerometer conditions are detected. Common external sensors include; brake lights, turn signal indicators, reverse gear, covert foot-switch, or door sensors.



Determine Device Trigger Signal Levels

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.

REVERSE GEAR SIGNAL

Tap into the reverse gear signal, with the vehicle started measure and record the DC voltage of the signal with the vehicle in park; measure and note the DC voltage when the vehicle is in reverse gear. Record both voltage levels on the [Sensor Worksheet](#). Refer to the vehicle manufacturer's wiring diagram for specific details for your vehicle.

Note *Sensor #1 is reserved for the Reverse Gear Signal for use with the Backup camera option on the DVM-250Plus.*

Trigger Wiring Installation

Once the administrator has received the signal information of each device, they will complete the lower section of the [Sensor Worksheet](#) on Page 7-1. Use the information they have provided to connect the IF Box Sensor cable to the devices.

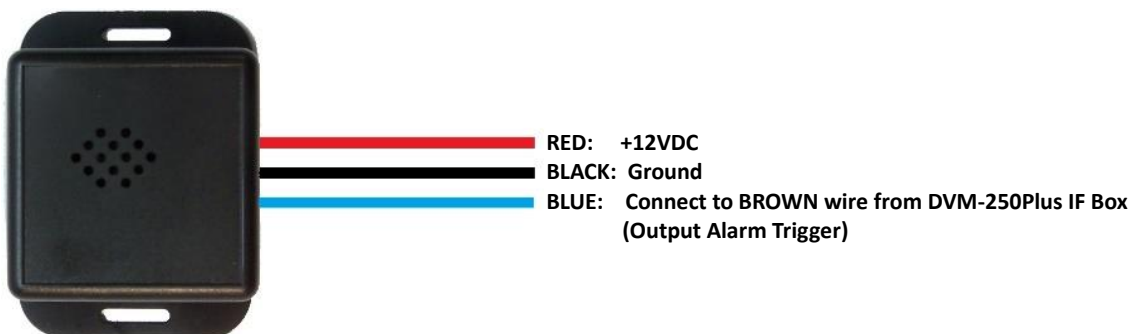
1. Position RJ45 end of the sensor cable near the IF Box RJ45 jack, but do not plug it into the IF Box.
2. Leaving a service loop for connection to the IF Box, begin routing the un-terminated end of the sensor cable to the desired location in the vehicle for connection for each of the input sensor devices.
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. The devices can then be connected to the sensor interface cable based on the lower section of the [Sensor Worksheet](#) on page 7-1.
5. Use the following table for wiring connections to the sensor cable and connect the external devices to the appropriate wire of the RJ45 sensor cable.
6. When all external devices have been connected, plug the RJ45 connector into the jack labeled "SENS A" on the IF Box.

| Pin | Sensor Number | Wire Color |
|-----|--------------------------|------------|
| 1 | Sensor #1 (Reverse Gear) | RED |
| 2 | Sensor #2 | ORANGE |
| 3 | Sensor #3 | BLUE |
| 4 | Sensor #4 | YELLOW |
| 5 | Sensor #5 | WHITE |
| 6 | Sensor #6 | GREEN |
| 7 | Output Alarm | BROWN |
| 8* | Ground | BLACK |

*Pin 8 (Ground) can be used to provide a signal ground.

Output Alarm Beeper Indicator (Optional)

The optional Beeper Indicator Kit (Digital Ally P/N 001-00075-00) is used to give an audible alert when the Output Alarm is triggered. When creating the DVM-250Plus configuration file, use the check boxes under *Output Alarm* to select the System Event Types that will activate the alarm. This beeper option is typically used for accelerometer functions, such as excessive speed, acceleration, cornering, etc., to alert the driver to correct the condition. Upon activation the Beeper Indicator will emit 2 long beeps that sound like this; "BEEEEEEEEEEEEEP! BEEEEEEEEEEEEEP!"

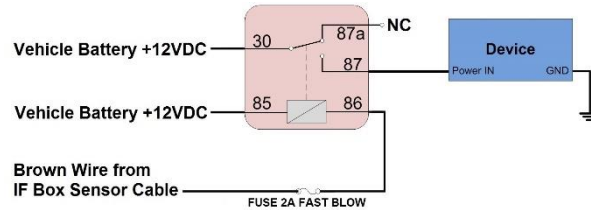


Remote Accessory Out

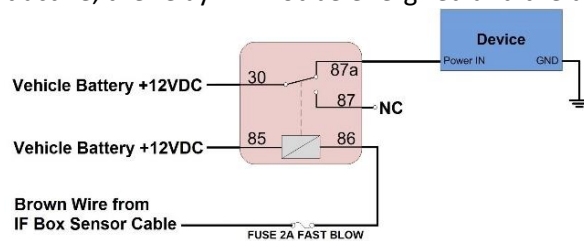
The DVM-250Plus IF Box sensors can be configured to activate or deactivate an auxiliary device when an event record begins. Below is a general outline showing how the Output Alarm Trigger can be wired using an interposing relay. The device, relay, and fuse are optional customer provided items. Be sure to select a relay which can handle the power requirements of your device.

Example wiring diagrams:

1. **Activate during Event Recording:** To activate a +12VDC device when a configured Event Trigger becomes active, connect it to the IF Box as shown in the diagram below. 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.

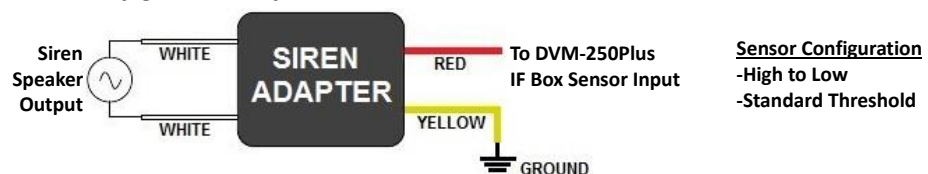


2. **De-Activate during Event Recording:** To de-activate a +12VDC device when a configured Event Trigger becomes active, connect it to the IF Box as shown in the diagram below. When the Output alarm is active the relay will be energized and the device will not be powered. If the Output Alarm is not active, the relay will not be energized and the device will be powered on.



Siren Adapter Interface (Optional)

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. *The sensor must be configured for a High to Low, Standard Threshold within the Configuration software.*



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 IF Box. For more information and installation instructions, refer to the *DVM-250 Terminal Block Kit Installation Instructions* included with the kit.



Step 5: Backup Camera Installation

Route the Camera Cable

1. Plug the connector on the DVM end of the Backup Camera cable into the back of the DVM. This cable will connect to the short cable attached to the Backup Camera.
2. Leave slack in the cable as a service loop and for DVM adjustment; then begin routing the cable to the rear of the vehicle.
3. If possible, route the camera cable to the opposite direction of other cables connected to the DVM under the front edge of the headliner.
4. Depending on your vehicle you may be able to route the cable down the side of the headliner to a rear compartment of the vehicle. Otherwise find a suitable route on the floorboard of the vehicle.
5. To conceal the cable it may be necessary to loosen interior trim and other components within the vehicle.

Do not route wiring and cabling over sharp metal edges. When possible, 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 objects.

6. Secure the cable using Velcro or standard tie wraps as required.
7. The cable connector for the Backup Camera should be routed to a rear compartment of the vehicle such as the trunk of a car, to a location within 3 feet of the rear license plate.

Mount the Backup Camera

LICENSE PLATE BACKUP CAMERA

1. Remove the top two screws holding the rear license plate to the vehicle.
2. Position the backup camera bracket along the top edge of the license plate.
3. Replace the license plate mounting screws to complete the bracket installation.



License Plate Backup Camera



Mini Backup Camera

Note

It may be illegal in your local area or state to cover up the State, County, Year, etc. on the vehicle license plate. Depending on the design of the license plate for your particular state, you may need to use the Mini Backup Camera in order to ensure compliance with your local and state laws.

EXTERNAL MOUNT BACKUP CAMERA

1. Identify a flat surface to attach the mounting bracket.
2. For exterior mounting where the cable must be routed through a panel to the interior of the vehicle:
 - a. Position the mounting bracket, locate the $\frac{3}{4}$ " hole in the bracket, and mark the center on the mounting surface.
 - b. Place the bracket aside. Prepare the center mark on the mounting surface using a hole punch, and then drill the hole using a $\frac{3}{4}$ " drill bit.
3. Using the camera hardware provided:
 - a. For installations with a $\frac{3}{4}$ " cable hole drilled through from the exterior to the interior of the vehicle, the black mounting grommet and gasket should be used to provide a



weather resistant seal between the vehicle surface and the camera's mounting bracket.

- b. Install the camera bracket to the vehicle (see pictures below).
- c. Attach the camera to the mounting bracket.



Connect the Backup Camera

1. The pigtail from the Backup Camera will connect to the camera cable routed from the DVM. The connection between the pigtail and camera cable should be made inside the vehicle in a dry, moisture free location.
2. Route the pigtail from the Backup Camera to the selected area inside the vehicle.
3. Connect the pigtail cable connector to the mating connector of the Camera Cable routed from the DVM.

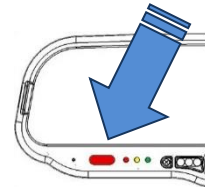
Section - 4: Testing the Installation

Initial Power Up

1. Turn the vehicle ignition switch to the ON position. The vehicle does not have to be running.
2. 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.
3. Once the boot-up process is complete, the Green LED will be lit indicating the DVM is powered on, is ready, and in standby mode.

Record an Event

1. Press the RECORD button.
2. The Red status indicator will flash 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

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. The Red status indicator will begin flashing at 3 second intervals, indicating the back-up event is being recorded.
5. Put the transmission back into Park.
6. The LCD monitor will turn off and the Red status indicator will extinguish, indicating the DVM has returned to standby mode.

Sensor/Output Alarm Testing

The Administrator is able to provide you with a configuration for the DVM to test Input Sensor Triggers that have been connected to the DVM system. Below are basic instructions for testing these ports:

1. Activate a trigger input device to begin an Event Record.
2. The Red status indicator will flash to indicate the manual event is being recorded.
3. If the DVM was configured to activate the Output Alarm for the input trigger, verify for the proper functionality.
4. After the Event Record Length has been reached the event record will stop.
5. The Red status indicator will turn off, indicating the DVM has returned to standby mode.
6. Repeat this process above for each of the input devices.

Section - 5: Support

Resetting the DVM-250Plus System

Using a small blunt object such as a small eyeglass 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. | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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. |
| Yellow LED on Solid | <ul style="list-style-type: none"> Memory is full. Upload event files from the DVM or replace the external SD card with a blank SD card. |
| DVM powers up but doesn't record | <ul style="list-style-type: none"> Check the LED status indicators and clear accordingly. Reset the system. |
| DVM powers up and goes directly to an event record (Red LED Flashes) | <p>An event record has been triggered from either an internal sensor or from an IF Box:</p> <ul style="list-style-type: none"> Disconnect the Sensor Cable RJ45 connector from the IF Box and reset the DVM. If the problem doesn't reoccur, check the wiring from the vehicle to the sensor cable. Check the DVM configuration parameter values for all internal sensors and/or IF Box sensors. |
| Backup Camera not visible on the LCD when the vehicle is in Reverse gear | <ul style="list-style-type: none"> Verify the DVM is powered ON and operational. <p><i>Note: Backup camera operation will only occur when vehicle ignition is on and running.</i></p> Verify the reverse gear wiring is connected to the Red wire of the RJ45 sensor cable. Verify the Reverse Gear signal voltages. Verify there are no breaks, pinches, or cuts in any of the wiring or cable harnesses for the backup camera, IF Box, reverse gear wiring, vehicle power and ignition wiring. Verify the IF Box is connected to the DVM. Verify the camera cable connector is connected to the back of the DVM. Verify the camera cable from the DVM is connected to the connector on the harness from the camera. Verify the DVM sensor inputs are configured correctly through the <i>Configuration Manager</i> software or through FleetVu. Refer to the Administrator Guide for additional details for configuring the DVM. |

| Symptom | Resolution |
|---|--|
| Backup Camera is visible when the vehicle is in Park | <ul style="list-style-type: none"> • The default configuration for the IF Box reverse gear signal is from High to Low (+12VDC to 0VDC). If the reverse gear signal that is connected has +12VDC when in reverse, the DVM will need to be re-configured through the <i>Configuration Manager</i> software or through FleetVu. |
| Backup Camera video is garbled or not intelligible | <ul style="list-style-type: none"> • Verify backup camera, cabling, and connectors. • IF Box may be defective |
| DVM is unresponsive | <ul style="list-style-type: none"> • Verify the cables and cable connections. • Verify vehicle power. • Press the reset button. |
| False Triggering of Event Recordings | <ul style="list-style-type: none"> • 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. |

Section - 6: Contact Information

Address: Digital Ally, Inc.
9705 Loiret Blvd
Lenexa, KS 66219

Website: www.digitalallyinc.com

Support E-Mail: support@digitalallyinc.com

Sales E-Mail: sales@digitalallyinc.com

Phone: 913-814-7774

Fax: 913-814-7775

Sales/Support Toll Free: 1-800-440-4947

Hours of Operation: Monday-Friday: 8AM-5PM (*Central Standard Time*) excluding holidays



* Specifications subject to change without notice.

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 IF box input harness wire color used) | Measured DC Voltage | |
|--|----------------------|--------------------|
| | Inactive State (Vdc) | Active State (Vdc) |
| Reverse Gear Signal <i>RED</i> | <i>(Park)</i> | <i>(Reverse)</i> |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

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 | <input type="checkbox"/> Low to High <input type="checkbox"/> High to Low | <input type="checkbox"/> Standard <input type="checkbox"/> High |
| Sensor #2 | ORANGE | | <input type="checkbox"/> Low to High <input type="checkbox"/> High to Low | <input type="checkbox"/> Standard <input type="checkbox"/> High |
| Sensor #3 | BLUE | | <input type="checkbox"/> Low to High <input type="checkbox"/> High to Low | <input type="checkbox"/> Standard <input type="checkbox"/> High |
| Sensor #4 | YELLOW | | <input type="checkbox"/> Low to High <input type="checkbox"/> High to Low | <input type="checkbox"/> Standard <input type="checkbox"/> High |
| Sensor #5 | WHITE | | <input type="checkbox"/> Low to High <input type="checkbox"/> High to Low | <input type="checkbox"/> Standard <input type="checkbox"/> High |
| Sensor #6 | GREEN | | <input type="checkbox"/> Low to High <input type="checkbox"/> High to Low | <input type="checkbox"/> Standard <input type="checkbox"/> High |
| Output Alarm | BROWN | | | |
| GND | BLACK | | | |

Note Sensor #1 is reserved for the Reverse Gear Signal for use with the Backup camera option on the DVM-250Plus.