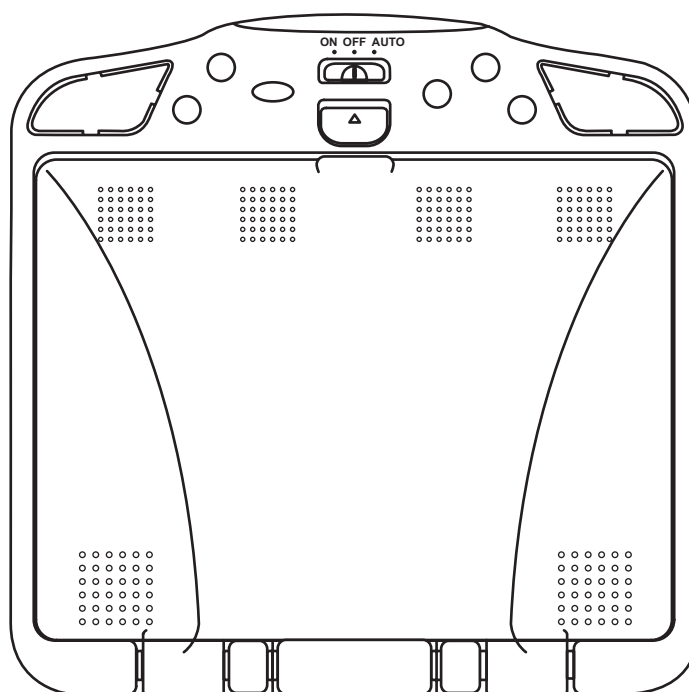




**AUDIOVOX<sup>®</sup>**  
ELECTRONICS CORP.

# VDS102T DROP-DOWN VIDEO MONITOR



## Installation Guide

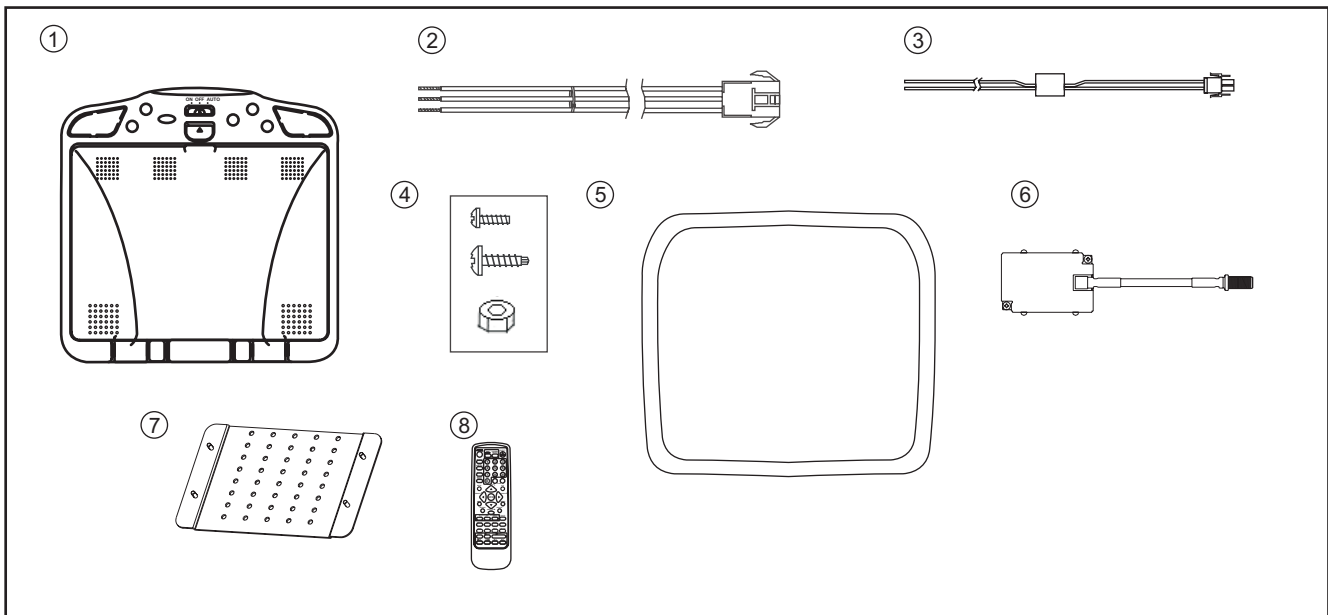
### Important Notice

An LCD panel and/or video monitor may be installed in a motor vehicle and visible to the driver if the LCD panel or video monitor is used for vehicle information, system control, rear or side observation or navigation. If the LCD panel or video monitor is used for television reception, video or DVD play, the LCD panel or video monitor must be installed so that these features will only function when the vehicle is in “park” or when the vehicle’s parking brake is applied.

An LCD panel or video monitor used for television reception, video or DVD play that operates when the vehicle is in gear or when the parking brake is not applied must be installed to the rear of the driver’s seat where it will not be visible, directly or indirectly, to the operator of the motor vehicle.

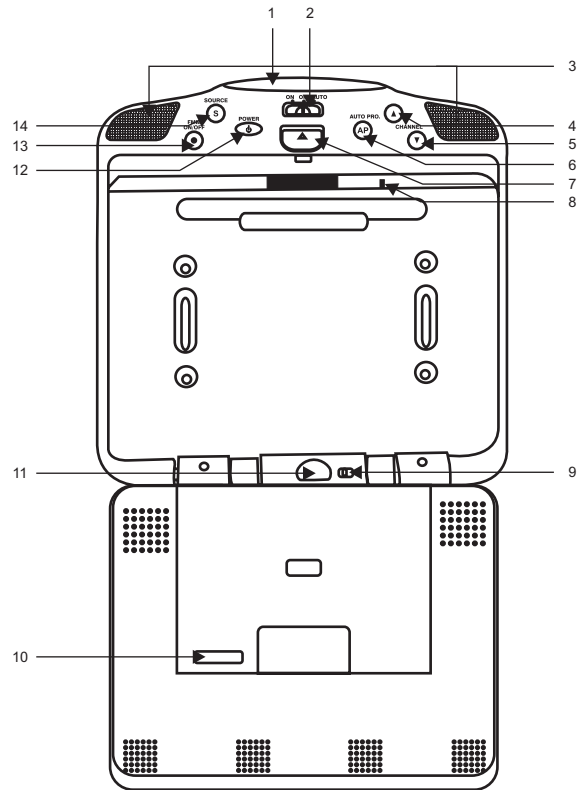
## MATERIALS INCLUDED IN THIS PACKAGE:

- 1) Over Head Docking Station (P/N 136-3955) – (1 pc)
- 2) Lamp Harness (P/N 112B3110) – (1 pc)
- 3) 2 Pin Power Wire Harness with choke (P/ N 112B3143) – (1 pc)
- 4) Hardware Package
  - Screws (#4) – (8 pcs)
  - Self Drilling Screws (#8) – (4 pcs)
  - Nut – (4 pcs)
- 5) Trim Ring (P/N 102-4111) – (1 pc)
- 6) PODTVT (P/N 136-3877) – (1 pc)
- 7) Mounting Bracket (P/N 108-3856) – (1 pc)
- 8) Remote Control (P/N 136-3956) – (1 pc)



## TOOLS REQUIRED:

Nut Driver / Socket Wrench  
#2 Phillips Screwdriver  
#1 Phillips Screwdriver  
Utility or Razor Knife or Shears  
Wire Strippers  
Upholstery hook tool (for removal of panels as necessary)  
Electrical Tape  
Masking Tape  
Multimeter (to verify 12 volt DC and continuity: Do not use a test light or logic probe)  
Marker pen – to mark headliner  
Scribe (to mark trim ring if used)  
Misc. electrical connectors (to connect to vehicle power source). Requirements will vary from vehicle to vehicle)



1. **Infrared Sensor** – Allows the remote control to operate the VDS102T and to control the shuttle when docked.

2. **Three position Dome Light Switch**

- Auto – Automatically switches on the dome lights in conjunction with the vehicle's interior illumination.
- Off – The dome lights will not turn on in this position.
- On – Turns on the dome lights.

3. **Dome Lights** – Provide additional interior illumination.

4. **Channel (▲) Button** – Used this button to increase the channel number to the desired number.

5. **Channel (▼) Button** – Used this button to decrease the channel number to the desired number.

6. **Auto Program Button** – Allows the user to scan and store active TV stations into memory.

7. **Screen Release** – Moves in the direction of the arrow to release the drop down screen.

8. **Shuttle Shut-off Switch** – Turns off the shuttle when closed.

9. **Security Lock Knob** – Used to ensure that the shuttle is not released accidentally.

10. **24 Pin Signal Interface Connector** – Used to connect the shuttle to the docking station.

11. **Shuttle Release** – Press to release the shuttle from the docking station.

12. **POWER Button** – Used to turn the system ON/OFF. Bright red when system is on, dim when off.

13. **FMM Select Button** – When this button is pressed it will turn on the wireless FM Modulator and then cycle through the available FM frequencies (FM Off, Channel 1, 88.3MHz; Channel 2, 88.7MHz; Channel 3, 89.1MHz; Channel 4, 89.5MHz; Channel 5, 89.9MHz).

14. **Source Select Button** – Used to select one of the three sources (DVD, AV1, TV)

## GENERAL INSTALLATION APPROACH:

- 1) Decide upon system configuration and options that will be installed (i.e.: what components, VCP, Video Game, external amp, wireless headphones, etc.).
- 2) Review all manuals to become familiar with electrical requirements and hook ups.
- 3) Decide upon mounting locations of all components and method of mounting.
- 4) Prep the vehicle by removing any interior trim necessary to gain access to vehicle's wiring as well as all areas where interconnecting wire harnesses will need to be located. If any access holes need to be cut into the vehicle (headliner, other trim components etc.), this should be done now as well. (Refer to Pages 5 & 6)
- 5) Route the wiring harnesses throughout the vehicle as necessary. (Refer to the Wiring Diagram on page 7 of this manual as well as the wiring instructions for the individual components and accessory options being installed). Be sure that all wiring is protected from sharp edges and is routed in such a manner that it will not be pinched when all components and interior trim are fully installed. Be sure to leave enough slack in the wiring at each component to allow working room.
- 6) Remove all A/V system components from their packaging and place them loosely in the vehicle at their respective locations.
- 7) Connect all components together (electrically) and verify proper operation of all system functions.  
**Note:** This is best done BEFORE, components have been permanently mounted.
- 8) After verifying proper operation of the system, proceed to mount of each component.
- 9) When all components are mounted, recheck function of entire system again to ensure that no wiring was pinched or connected improperly during final installation.

## SYSTEM OPTIONS:

There are a few audio output options that can be added as follows:

- a) Wireless Headphones (P/N MVIRHS).
- b) Wired relay box for wireless FM Modulator (SIRSWB).

The VDS102T video system is only intended for an overhead, drop down installation. It is not intended for Seatback or any other type of mounting. The hinging mechanism is designed for horizontal, drop down use only.

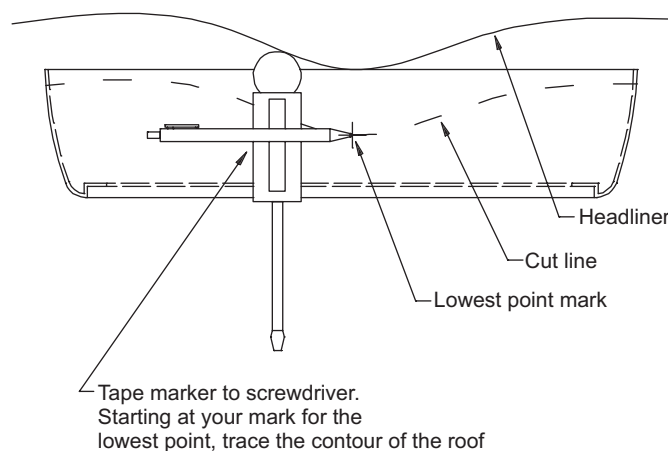
## VEHICLE PREPARATION:

- 1) Locate an accessory power source (+12v when key is in the ACC. and run positions, and 0v when key is off), and also a good ground generally, these wires can be found at the ignition switch or fuse-box.
- 2) The mounting method and location will vary from vehicle to vehicle, so this manual will only focus on the installation of the video monitor and related console accessories.
- 3) Generally, the best location for the video monitor is where the vehicle's factory dome light is installed. The monitor should be located in such a manner that it can be comfortably viewed by rear seat passengers. NEVER INSTALL THE MONITOR IN A PLACE WITHIN THE DRIVER'S VIEW. THIS IS NOT ONLY DANGEROUS, BUT IT IS ALSO ILLEGAL IN MANY STATES.
- 4) Once the mounting location of the monitor has been determined, there may be additional preparation work necessary, depending on the vehicle structure and installation method. Some of the steps that may be required are:
  - A) Removal of the vehicle's dome light
  - B) The headliner may.
  - C) If the trim ring will be used, it will have to be trimmed to fit the contour of the vehicle's headliner. Refer to the "trim ring installation" section in this manual.

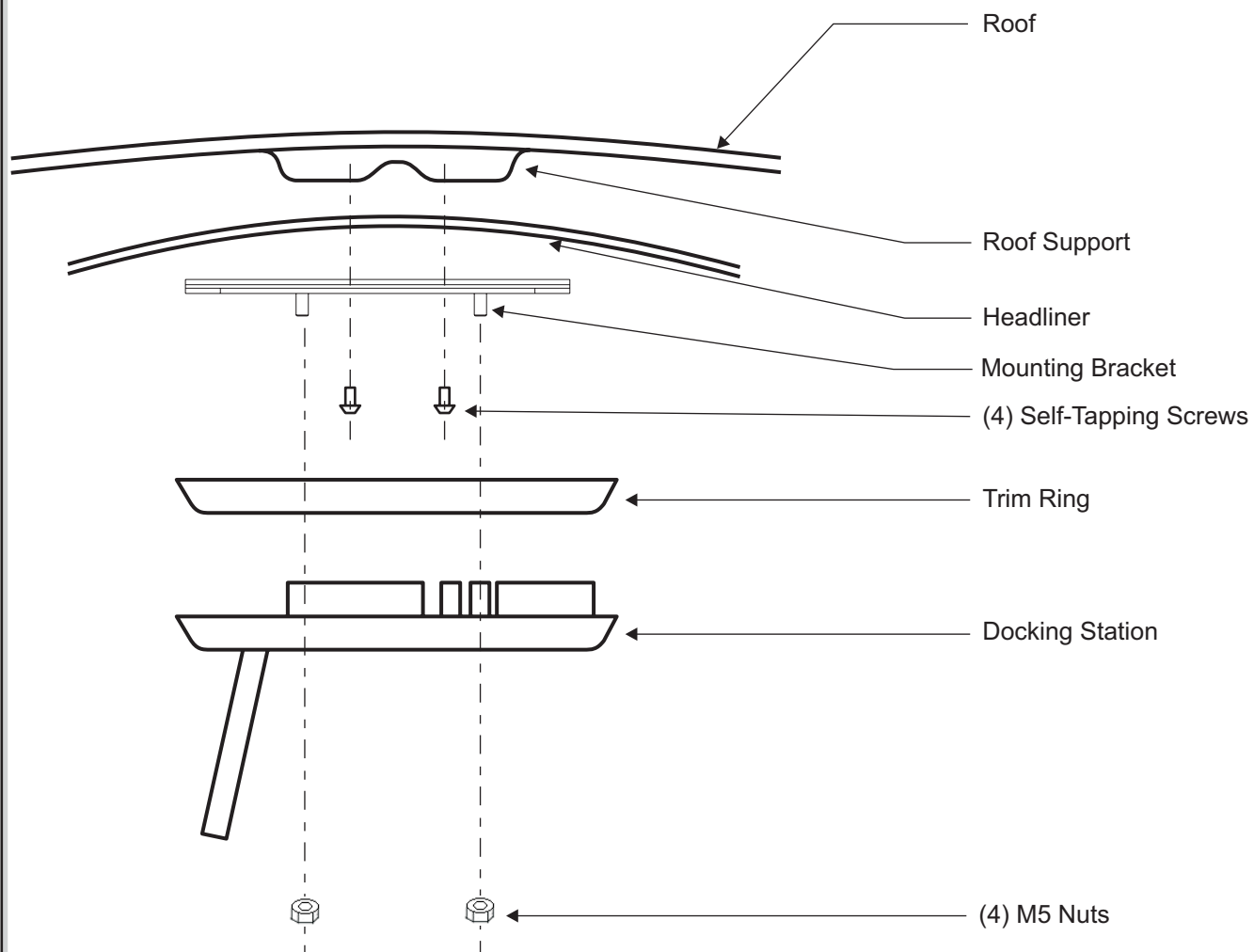
## TRIM RING INSTALLATION:

This page only covers special installation considerations for the trim ring installation. If the docking station is to be installed in a vehicle with the trim ring, it may need to be trimmed to fit the contour of the vehicle headliner.

- 1) In this installation, the docking station is mounted directly to the overhead cross-member in the roof using the mounting screw bosses. These screw bosses should contact the cross-member directly (i.e.: no gap between the screw boss and the roof structure). Also, be sure that the screws do not pierce the outer roof skin when fully fastened to the cross-member. The trim ring is attached to the docking station using the perimeter screw bosses. It is important that the screws used in this installation are not over tightened, and that the docking station and trim ring are mounted in such a way that the assembly does not distort (or bend) when the mounting screws are tightened. An alternate method is to use the supplied mounting bracket. Refer to the drawing on page 6.
- 2) It is best to mount the docking station to the roof structure without the trim ring first. There should be a gap between the headliner and the outer flange of the docking station. The trim ring should be cut to full this gap. Apply masking tape to the outer surface of the trim ring in the areas where the cut will be made.
- 3) Mark the cut to follow the necessary contour of the roof. The suggested method of marking is as follows:
  - A) First mark the narrowest point of the trim ring on the masking tape. Be careful to consider not only vertical location, but fore-aft location.
  - B) Using the handle of a screwdriver, make a "transfer marking tool". See diagram below. Place the tool against the roof and the marker against the masking tape on the trim ring. Trace the cut to be made around the entire perimeter of the trim ring.
  - C) Cut the trim ring using a sharp utility knife or shears. Make the cut in several passes over the marked line, each time cutting a little deeper. It is not necessary to cut completely through the plastic, the cut only need be over 50% of the wall thickness of the plastic. By bending the cut back and forth several times, the plastic will break cleanly at the cut.
  - D) Check the fit of the trimmed console and make any minor adjustments necessary.
- 4) The finished trim ring should be attached to the video monitor, then attach the assembly to the roof.

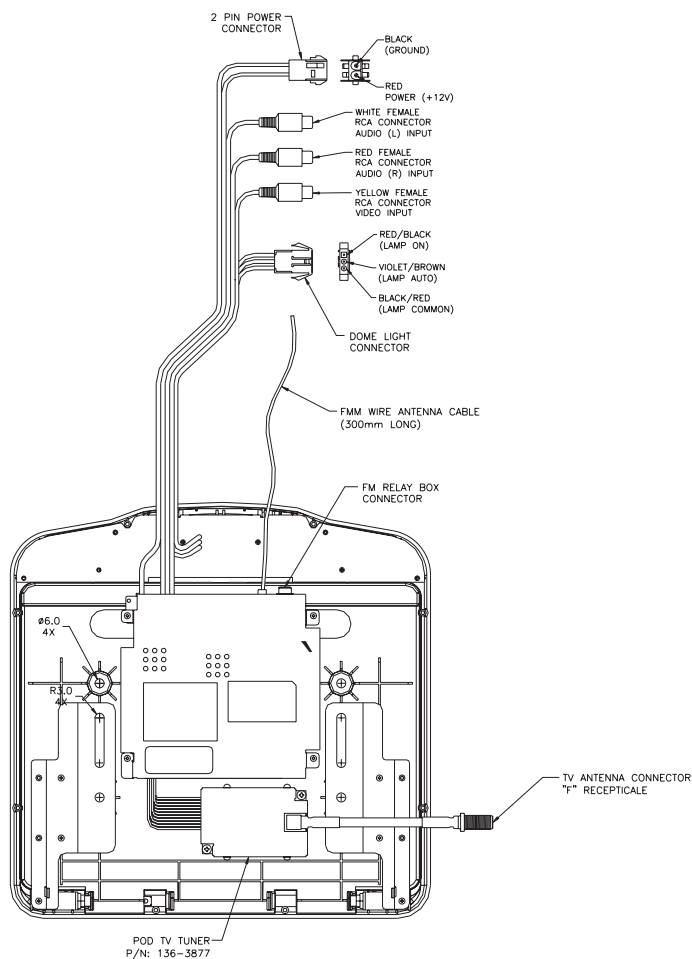


## MOUNTING THE TRIM RING VDS102



**NOTE:** Use care when screwing the bracket to the roof support, so to avoid damaging the roof of the vehicle





- 1) Make the connections to the vehicle for the 12 pin wiring harness.
- 2) Connect power harness to vehicle's electrical system by tapping into an accessory hot line and a good ground.
- 3) Verify all functions of the System before final mounting of the finished assembly.

A/V Source Definitions: Shuttle, AV Input and TV

**\*NOTE:** If the original relay box P/N SIRSXB is installed, it recommended that the antenna for the wireless FM Modulator be unplugged. See Figure A for antenna location.

**\*\*NOTE:** Extending the wireless antenna beyond its 12 inch length will cause the FM Modulator to exceed FCC limits for wireless transmission. When installing the unit position the antenna for best reception.

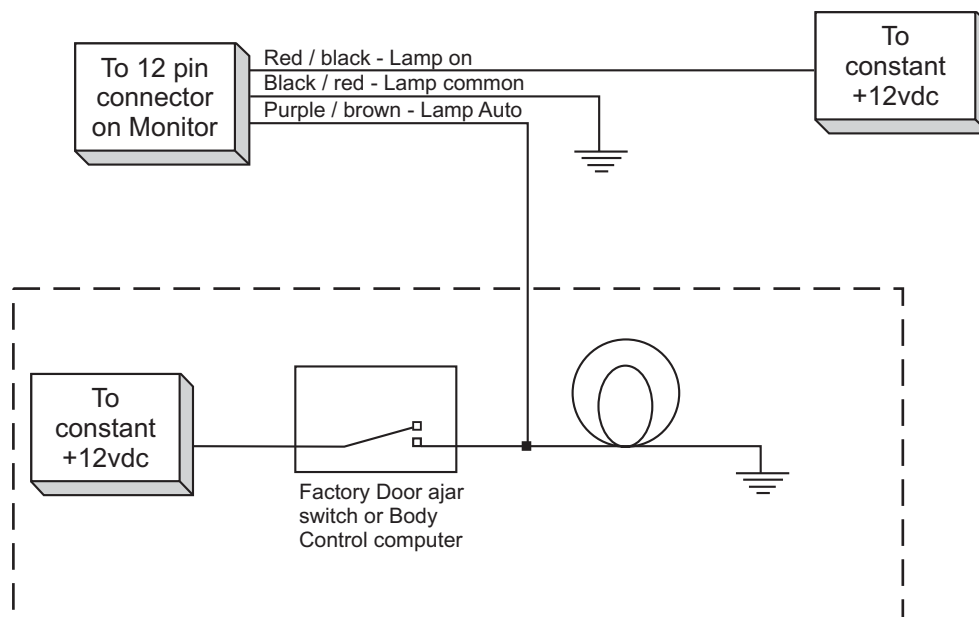
## CONNECTING THE DOME LIGHTS

The dome lights in the video monitor require three connections to the vehicle's wiring. There are two common types of dome light circuits used, positive or negative switched. Positive systems supply voltage to the interior lights to turn them on, negative switched systems apply ground to illuminate the bulbs. To determine which system you have you must locate the wires at the dome light. On a positive switched system, with all the doors closed and the lights out, both wires at the dome light will rest at ground. When the light is activated, one of these wires will switch to +12 vdc. This is the vehicle's switching wire. On a negative switched system, with all the doors closed and the lights out, both wires at the dome light will rest at +12 vdc. When the light is activated, one of these wires will switch to ground. This is the switching wire. For positive systems, connect the purple / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a fused constant 12 volt source and the black / red (lamp common) wire to a good ground. Positive systems are commonly found on Ford vehicles. For negative systems, connect the purple / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a good ground and the black / red (lamp common) wire to fused constant 12 volt source. Negative systems are commonly found on General Motors and import vehicles.

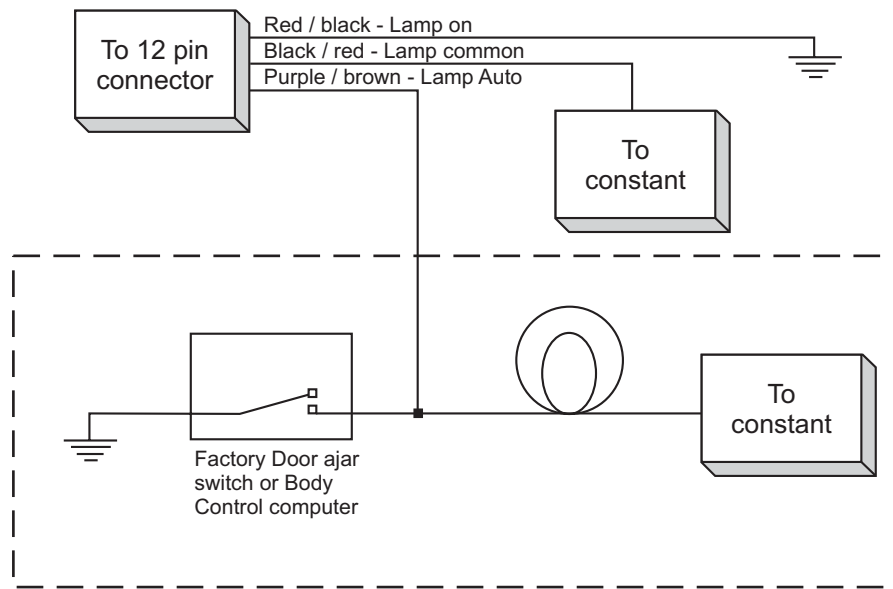
### **Note:**

Some vehicles which incorporate transistorized control of the dome light circuit, such as the 1999 Dodge Caravan, may require that the purple / brown (Lamp auto) wire be connected to the door pin switch wire, as the additional current draw of the Monitor's lights may not be supported by the output of the vehicles body control computer.

### Positive Switched Dome Lighting



## Negative Switched Dome Lighting



## Troubleshooting:

### SYMPTOM:

**No power at Video Monitor**

### REMEDY:

Verify +12 VDC on Red wire at 2 pin Power Harness behind video monitor. Verify ground connection with continuity test from known good ground to black wire at 2 pin Power Harness

**Power but no video or sound**

Verify that the correct source is selected (i.e.: 1,2,3 or 4). Verify that the source is on and playing a known good media (such as a videotape). Verify connections at both ends of the source component harness.

**Static on TV Stations  
(Tuner Version Only)**

Press Auto Program button. Then press CH up or CH down. Verify antenna mounting and connections to the tuner.

**Note:** Due to the nature of TV signals, vehicle motion, direction the vehicle is facing, distance from the transmitter, nearby surroundings and weather may adversely affect TV reception. These conditions may result in the following: picture roll, "snowy" picture, or momentary loss of color.

**No Infrared remote functions  
for VCP (or other components)**

Check batteries in the hand held remote (not included with this kit). Verify that the IR LED ( page 7 Wiring Diagram) is properly attached to the sensor window of the VCP (or other component).



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