

# FlexVision®

LCM1331FD / LCM1331FDW  
Owner's/Installation  
Manual  
13.3" Flip-Down In Vehicle  
Entertainment System



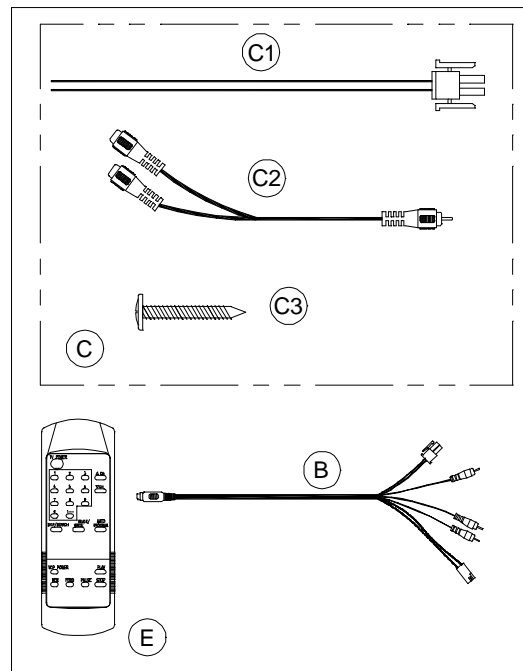
Audiovox Specialized Applications, LLC  
23319 Cooper Dr.  
Elkhart, IN 46514  
219-264-3135  
[www.asaelectronics.com](http://www.asaelectronics.com)

## Features

- TFT Active Matrix Color 13.3" LCD
- 3 Channel A/V Switching Built-In
- Audio Amplifier, Volume Control, and Headphone Jacks Built-In
- Game/Camcorder A/V Input Jacks
- Backlit Controls for easy Night Operation
- "Hide-Away" Screen when not in Use
- Built-In TV Tuner
- Infrared Remote Control Repeater Circuit (for Wireless VCP, and Tuner Functions)  
(VCP must be purchased separately)

## Package Contents

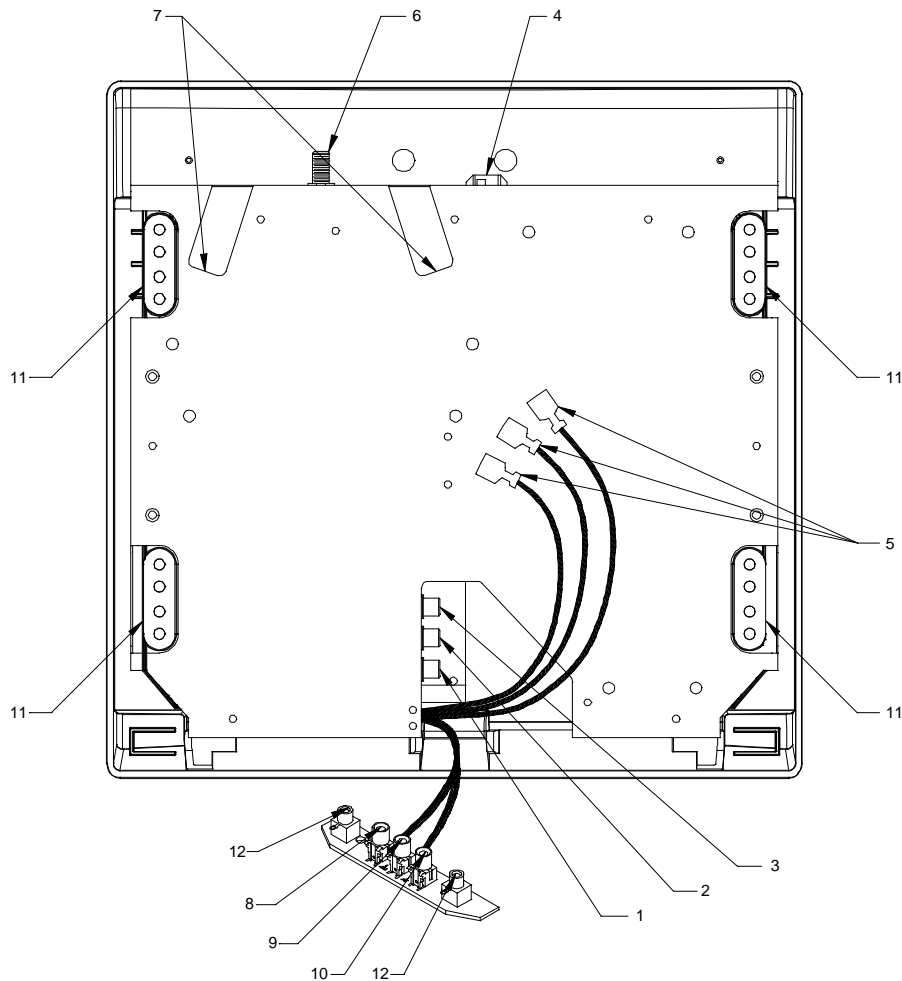
- A) LCM1331FD Video Flip Down Pod- (p/n LCM1331FD)  
(not shown)
- B) Source Component Harness- (p/n 8010730)
- C) Accessory Bag-
  1. Power harness (15ft.)
  2. Audio "Y" Patch Cord Adapter- (p/n 0892165)
  3. #10 x 1 1/4" Self-drilling Screws- (Qty. 8)
- D) Owner's/Installation Manual (not shown)
- E) Remote Control



## Tools Required

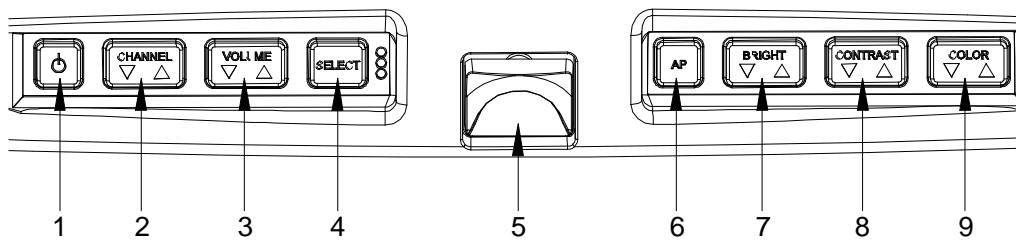
- #2 Phillips Screwdriver
- Wire Strippers
- Masking Tape
- Multimeter (to verify 12VDC and continuity, do not use test light)
- #1 Phillips Screwdriver
- Utility Knife
- Electrical Tape
- Misc. electrical connectors (to connect to the vehicle power source.... Will vary from vehicle to vehicle)
- Video tape (to verify function of the system after installation)

## Rear Panel Feature



- 1) Left RCA Out: Hook-up for left audio out (white female RCA jack)
- 2) Right RCA Out: Hook-up for right audio out (red female RCA jack)
- 3) Video Out: Hook-up for video out (yellow female RCA jack)
- 4) Power Harness Connection: This plug connects to the power harness mating plug
- 5) Optional Wired Headphone Connections: Green is right positive, Gray is left positive and Black is the ground. Minimal load requirement is 4Ω. Additional speakers or amplifiers can be added to the system at this connection point.
- 6) Antenna Connections: This connects to the antenna if applicable.
- 7) DIN Connectors: The source component harness (P/N 8010730) connects here. A cable tie will mount through holes provided in PCB, and is recommended for wire strain relief. A second component harness is needed to utilize both mini-din connectors.
- 8) Right Audio In: Use to hook-up Game/Camcorder or DVD (red female RCA jack)
- 9) Left Audio In: Use to hook-up Game/Camcorder or DVD (white female RCA jack)
- 10) Video In: From Game/Camcorder or DVD (yellow female RCA jack)
- 11) Mounting location: Panel mounting locations
- 12) Headphone Out: Additional headphone out jacks for wired headphones.

## Front Button Panel Features



- 1) Power: This button turns LCM1331FD/LCM1331FDW on and off. Dimly lit when in stand-by mode.
- 2) Channel  $\Delta$   $\nabla$ : Pressing  $\Delta$  will select higher programmed channels and pressing  $\nabla$  will select lower programmed channels than current channel.
- 3) Volume  $\Delta$   $\nabla$ : Pressing  $\Delta$  will raise the volume and pressing  $\nabla$  will lower the volume.
- 4) Select: Each press of this button selects the next source (1-3). Note that some sources produce an image, depending upon whether components are connected to all sources.
- 5) Latch: Sliding this latch forward will release the 12.1" monitor to drop into playing position.
- 6) AP: Places the tuner in auto-program mode. Auto program will scan all channels available and store active channels into memory for easy selection with the channel up/down buttons.
- 7) Bright  $\Delta$   $\nabla$ : Pressing this button  $\Delta$  will increase monitor brightness, and pressing this button  $\nabla$  will decrease monitor brightness.
- 8) Contrast  $\Delta$   $\nabla$ : Pressing this button  $\Delta$  will increase picture contrast, and pressing this button  $\nabla$  will decrease contrast.
- 9) Color  $\Delta$   $\nabla$ : Pressing this button  $\Delta$  will increase color separation and pressing this button  $\nabla$  will decrease color separation.

## **General Installation Approach**

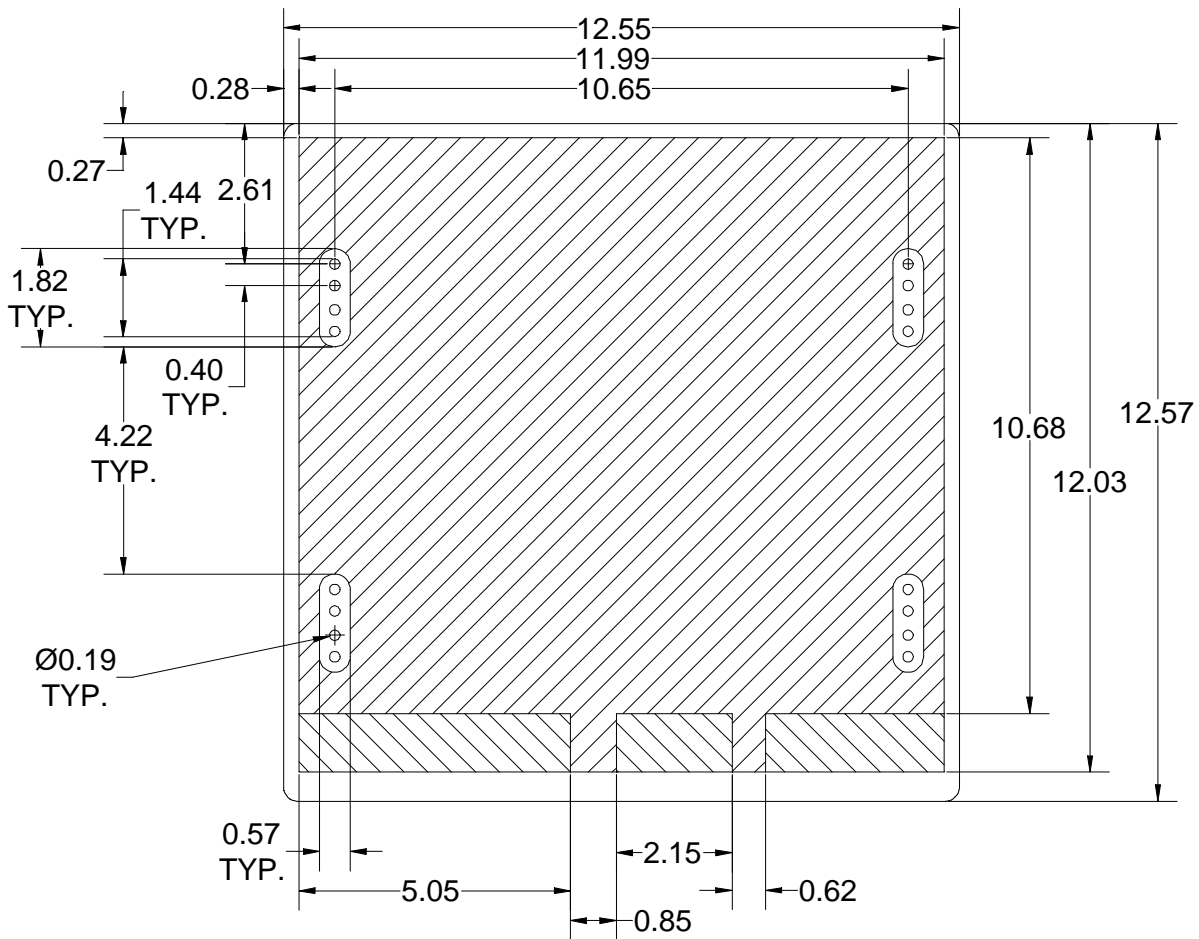
- 1) Before beginning installation, please refer to warning on page 10.
- 2) Decide upon system configuration and options that will be installed (ie: what components, VCP, remote headphones, 2<sup>nd</sup> VCP, etc.).
- 3) Review all manuals to become familiar with electrical requirements and hook ups.
- 4) Decide upon mounting locations of all components and method of mounting.
- 5) Prep the vehicle by removing any interior trim necessary to gain access to vehicle power hook up point 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 page 4.
- 6) Route the wiring harnesses throughout the vehicle as necessary. (Refer to the wiring diagram on pages 5 and 6 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.
- 7) Remove all A/V system components from their packaging and place them loosely in the vehicle at their respective locations.
- 8) Connect all components together (electrically) and verify proper operation of all system functions. NOTE: This is best done both BEFORE and AFTER all components have been permanently mounted.
- 9) After verifying proper operation of the system, proceed with mounting of each component.
- 10) When all components are mounted, recheck function of entire system again to ensure that no wiring was pinched or connected improperly during final installation.

## **Notes**

- Connecting to both the Wireless Headphones RF Transmitter and a FM Modulator will require an additional RCA Adapter (P/N 0892165).
- One dual RCA Patch Cord is needed to connect the TV/Monitor to the Wireless Headphone RF Transmitter. Available in two lengths: 3 Ft. (P/N 0892351) and 12 Ft. (P/N 0892353).
- One dual RCA Patch Cord is needed to connect the TV/Monitor to the FM Modulator, and is included in the FM Modulator package (P/N 0190730).
- For audio output, there are a few scenarios that may apply to your system:
  - a) Remote headphone jacks may be added and located throughout the vehicle.
  - b) Additional speakers and amplifiers may be added throughout the vehicle.

## Vehicle Preparation

- 1) Locate vehicle power source. Generally this is best found near the vehicle's fuse block, which is usually (though not always) under the steering wheel area. Locate an accessory hot circuit to tap into video system power. Accessory hot means a circuit that is +12VDC when the ignition key is in either the "ACC'Y" or "Run" positions, and 0 volts DC when the ignition key is removed from the vehicle.
- 2) Mounting location and method for the individual components will vary from vehicle to vehicle. This manual will only focus on the installation of the video pod itself and related console accessories.
- 3) Generally, the best location for the video pod itself is where the vehicle's dome light is traditionally installed (center of roof, just behind the two front seats). The pod should NEVER be located in a position that would place it within the driver's field of view. This is not only hazardous for driving conditions (as it creates a distraction to the driver), but it is against the law in many states. Check your state laws.
- 4) Once the pod location has been determined, there may be prep work required for the headliner. See mounting detail below for headliner cutout dimensions and hole locations.

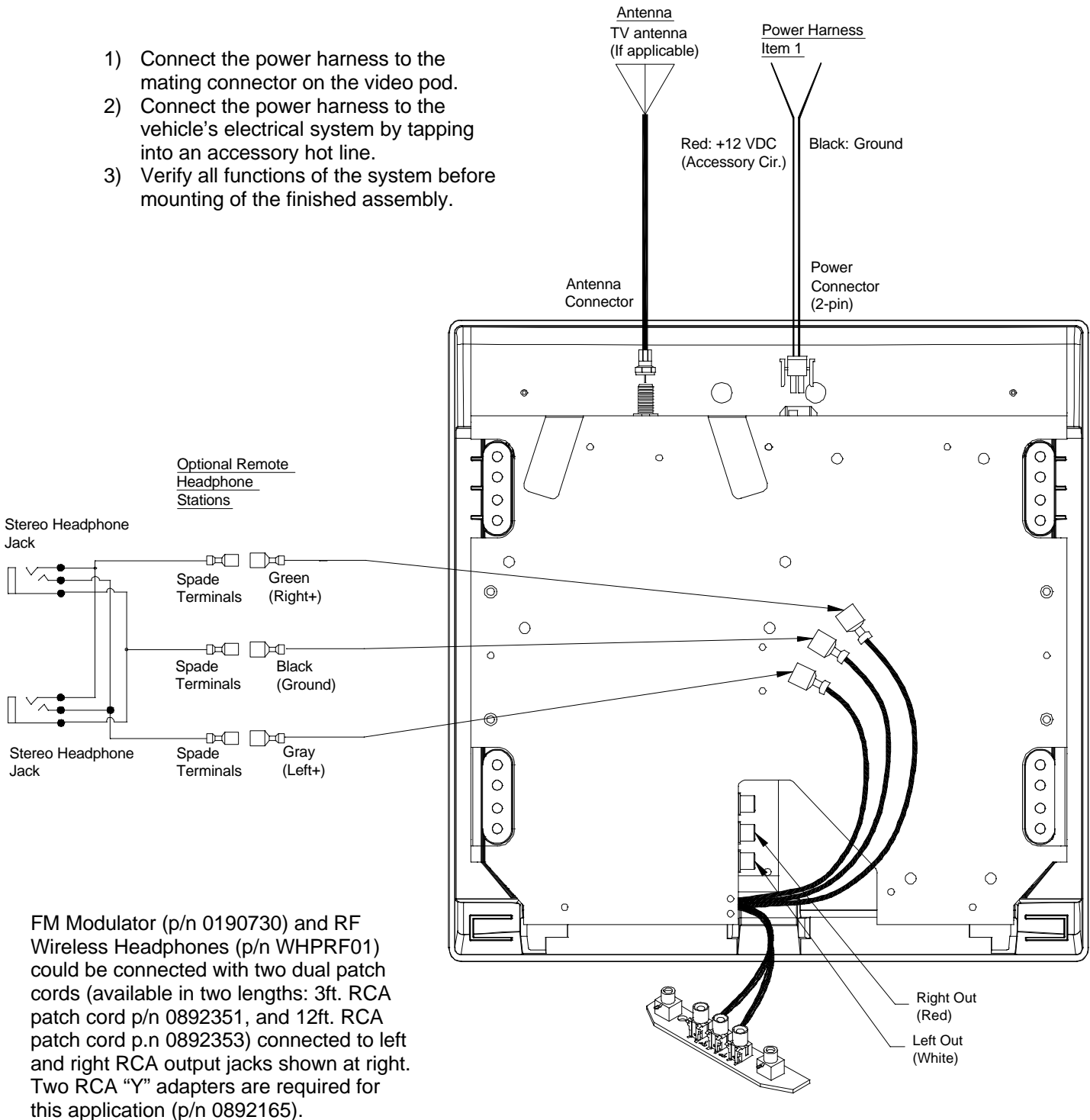


 = Minimum Cutout

 = Recommended Additional Cutout

# Wiring Diagram Hook Up Procedure

- 1) Connect the power harness to the mating connector on the video pod.
- 2) Connect the power harness to the vehicle's electrical system by tapping into an accessory hot line.
- 3) Verify all functions of the system before mounting of the finished assembly.



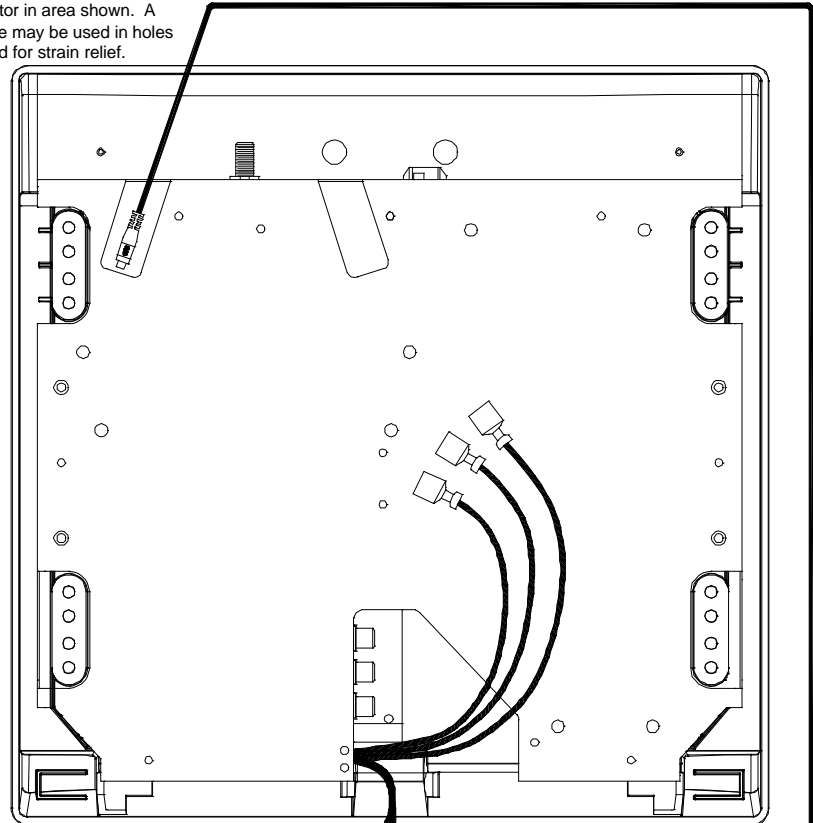
FM Modulator (p/n 0190730) and RF Wireless Headphones (p/n WHPRF01) could be connected with two dual patch cords (available in two lengths: 3ft. RCA patch cord p.n 0892351, and 12ft. RCA patch cord p.n 0892353) connected to left and right RCA output jacks shown at right. Two RCA "Y" adapters are required for this application (p/n 0892165).

## Source Component Harness Hook Up

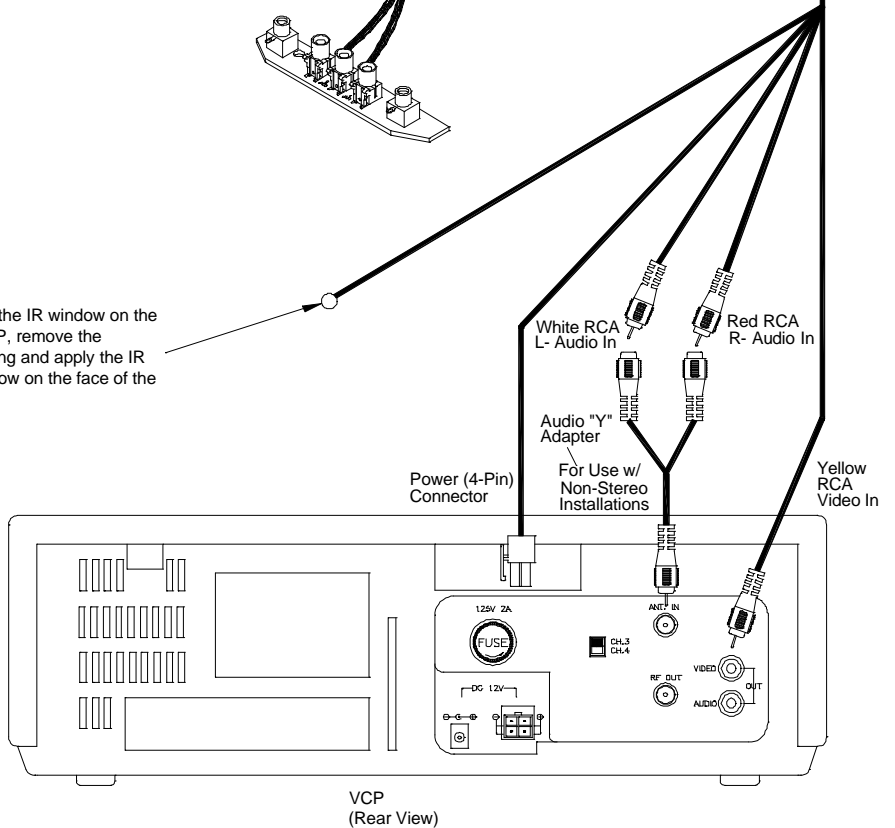
Connect to Mini-DIN connector in area shown. A cable tie may be used in holes provided for strain relief.

### FM Modulator/Wireless headphone Connections

FM Modulator white RCA jacks to red RCA (Right Audio Out) and red or yellow RCA from modulator to red RCA (Left Audio Out). WHPRF01 Wireless Headphones red or yellow to white RCA (Left Audio Out) and wireless headphone white RCA to white RCA (Right Audio Out).

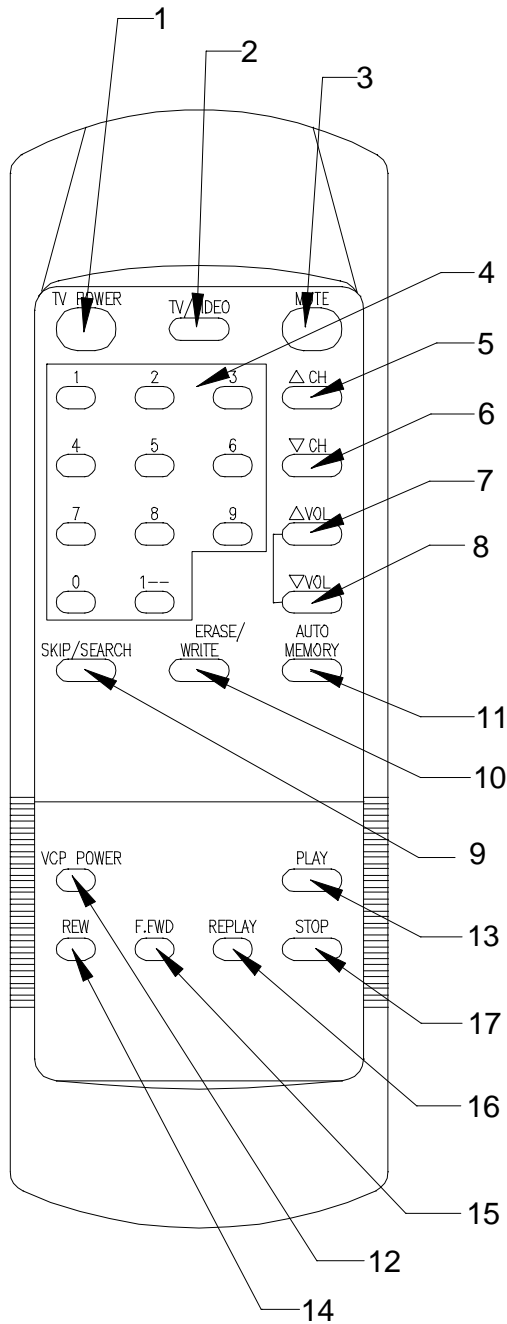


IR LED: Clean the IR window on the front of the VCP, remove the adhesive backing and apply the IR LED to IR window on the face of the VCP.





## Remote Control Functionality



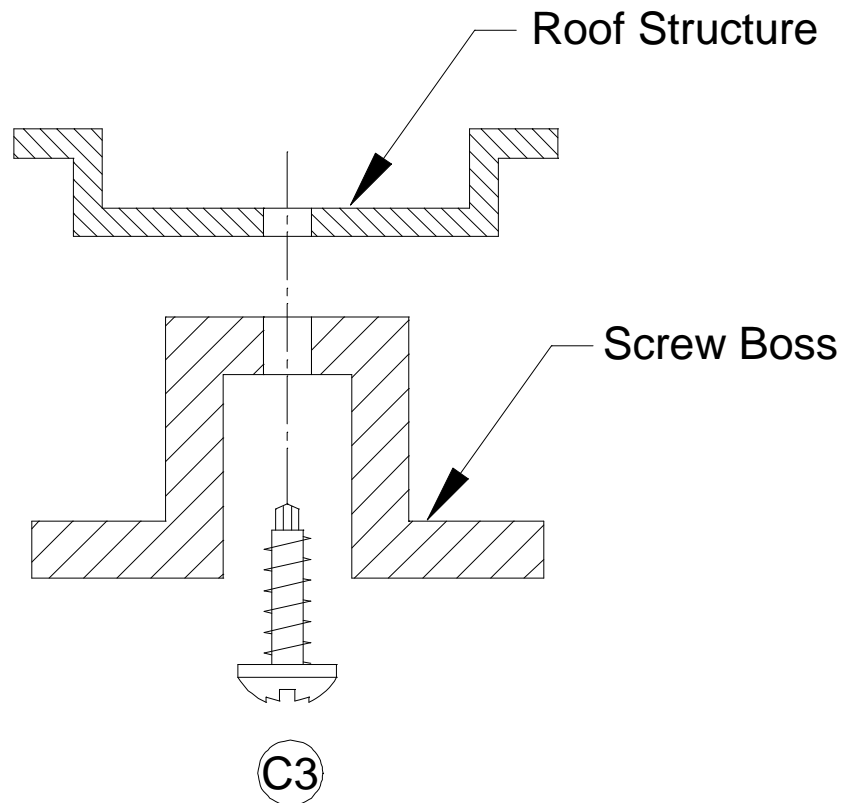
### TELEVISION CONTROLS:

- 1) TV Power: Turns unit on/off
- 2) TV/Video: Toggles between 3 available sources; Tuner/VCP/DVD (VCP2)
- 3) Mute: Mutes headphone audio
- 4) 0-9: Numbers for channel selection
- 5) Δ CH: Channel Up
- 6) ∇ CH: Channel Down
- 7) Δ Vol: Volume Up
- 8) ∇ Vol: Volume Down
- 9) Skip/Search: Toggles on/off. Skips channels that are not auto-programmed
- 10) Write/Erase: Controls manual adding/deleting auto-programmed channels
- 11) Auto-Memory: Programs stronger stations into memory

VCP CONTROLS: If a VCP is connected to source 2 or 3, these buttons will control functionality of the VCP. The IR emitter must be connected to the front of the VCP.

- 12) VCP Power: Toggles VCP power on/off
- 13) Play: Play tape in VCP
- 14) REW: Rewind tape in VCP
- 15) FFWD: Fast forward tape in the VCP
- 16) Replay: this button will stop current play, rewind the tape and replay the tape from the beginning
- 17) Stop: Stop the tape in the VCP.

## Cut-Away View of Mounting Bosses



Note: If longer screws are substituted, care should be taken to prevent piercing the roof, and be sure that pan head screws and washers are used to prevent screws from pulling through the screw boss. Eight screws must be used and secured to solid structure when mounting.

## Antenna Information

The following are a few points to consider in regards to TV reception in a mobile application.

Generally in a mobile application, the lower channels are the most difficult to receive due to the size of the antenna needed to receive the signal.

When the antennas are inside the vehicle, the TV signal can be obstructed by the outside metal of the vehicle. This will diminish UHF performance and may eliminate VHF reception altogether. VHF channels are 2-13 and UHF channels are 14-69.

Depending on the location of the antenna and the direction of the vehicle, some VHF signal may be received.

## Troubleshooting

| <b>Symptom:</b>                         | <b>Cause:</b>   | <b>Possible Solution:</b>  |
|---|---|--|
| Picture scrolls or is fuzzy             | Antenna type or location                                  | Change antenna or try antenna in a different location  |
| Poor Reception                          | Vehicle is moving   |  |
| Not receiving certain channels          | Connections   | Vehicle may be outside of TV signal range. Check antenna connections. Check number of antenna connections- the more connections there are, the greater the chance of signal loss, reduce the number of connectons if possible. |
| Unit will not respond to remote control | Sensor is blocked<br>Batteries in remote control are weak | Clear path for sensors or clean sensor lens.<br>Replace batteries  |
| No power to unit                        | Power connection<br>Fuse blown at fuse panel              | Check connections<br>Replace fuse  |

For Installation Help, Call:

Audiovox Specialized Applications, LLC  
800-688-3135  
M-F, 8:00AM –5:00PM EST

## **Specifications**

|  |   |
|--|---|
| Video System:  | NSTC Analog Composite Video (1V P-P, 75 $\Omega$ )        |
| A/V Switching:   | 3 channels  |
| Power:   | 10-16 VDC, Negative Ground                                |
| Aux Audio Outputs:   | Left and Right Variable (800mV max, 8 $\Omega$ load min.) |
| Left and Right Fixed (300mV typical, 600 $\Omega$ load min.) |   |
| Current Consumption (stand-by mode):                         | 67mA  |
| Current Consumption (on, but no VCP):                        | 635mA   |
| Current Consumption (with one VCP on):                       | 1.5A  |
| Audio Noise Floor (30KHz BW):                                | 1.164mV (-58dB re:1V)                                     |
| THD+N @ -10dBV, 1KHz (30KHz BW):                             | 0.356%  |
| Cross talk @ 1KHz:   | 60dB  |
| Maximum Input Level, Audio L and R:                          | 800mV   |
| Frequency Response, 20Hz – 20KHz:                            | $\pm$ 1.5dB   |
| Frequency Response, 40Hz – 16KHz:                            | $\pm$ 0.5dB   |
| Channel Balance:   | $\pm$ 0.5dB, 0.05dB Typical                               |
| Volume Control:  | Dual 64 position log taper w/true 1dB/step accuracy       |
| Unit Weight:   | 8.5 lbs.  |
| Audio Output Min. Load Requirement:                          | 4 $\Omega$  |

Note: Specifications are subject to change without notice.

Tuner cable ready when used in conjunction with other remote control from accessory list.

## **Warning**

It is unlawful in most jurisdictions for a person to drive a motor vehicle which is equipped with a television viewer or screen that is located in the motor vehicle at any point forward of the back of the driver's seat, or that is visible directly or indirectly, to the driver while operating the vehicle. This product should only be installed to the rear of the back of the driver's seat where it will not be visible, directly or indirectly, to the operator of the motor vehicle.

## Optional Product List

| <b>Televisions</b>   |             |
|--|-------------|
| AVT-988 9" Color Television with Remote (12V)              | AVT988      |
| AVT-1498 13" Color Television with Remote (12V)            | AVT1498     |
| <b>VCP and DVD Players<br/>For use with TV's and LCD</b>   |             |
| AVP-7000 Video Cassette Player (12V)                       | AVP7000     |
| AVP-7285 Stereo Video Cassette Player (12V)                | AVP7285     |
| Single Disc DVD Player                                     | DVD2101     |
| <b>Headphones</b>  |             |
| Wireless Headphones  | WHRF01      |
| Headphones with Pivoting Ear Cup                           | HP175       |
| Headphones with Volume Control on Cord                     | HP275       |
| Studio Quality Headphones                                  | HP375       |
| <b>Miscellaneous</b>                                       |             |
| Remote Controls  | Please Call |
| Wallmount Family Radio Service with 4 Handsets             | FRS4WM      |
| Replacement Handset  | FRS100Y     |
| 12V Corded Vacuum  | VAC21       |
| Rechargeable Flashlight                                    | AVF1        |
| Window Mount TV Antenna                                    | AN350       |
| 2-Amp Adapter for use with AVP7000/AVP7285 VCP             | 0891436     |
| 4-Amp Adapter for use with AVT988 9" TV and AVT1498 13" TV | 0891412     |
| <b>Wallmount Radios</b>                                    |             |
| AM/FM Wallmount Manual Tune w/Cassette Player              | AWM710      |
| AM/FM Wallmount Electronic Tune w/Cassette Player          | AWM820      |
| AM/FM Wallmount Stereo with CD Player                      | AWM930      |
| <b>Marine</b>  |             |
| AM/FM Stereo with CD Player                                | MS1000      |
| AM/FM Weatherband Stereo with Cassette Player              | MS407       |
| AM/FM Stereo with Cassette Player (analog tune)            | MS306       |
| AM/FM Stereo with Cassette Player (analog tune)            | MS220       |
| Weatherproof Housing                                       | MRH211      |
| 50 Watt 6 ½ Speakers (white/black)                         | AMS6        |
| 30 Watt 5" Speakers (white/black)                          | AMS5        |
| 30 Watt 4" Speakers  | AMS4        |
| Marine Radio Antenna                                       | AN125       |

To order any of these products please call 800-688-3135

OR

Visit our Website at: [www.asaelectronics.com](http://www.asaelectronics.com)



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