

VOH684



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Operation Manual

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WARNINGS

- ❖ Do not use any solvents or cleaning materials when cleaning the video system.
- ❖ Do not use any abrasive cleaners, they may scratch the screen. Use only a lightly dampened lint free cloth to wipe the screen if it is dirty.
- ❖ Lock the LCD screen in the fully closed position when not in use.
- ❖ Before putting on headphones always adjust the volume setting to the lowest position.
- ❖ Remember to leave the dome light switch in the off or auto positions when the vehicle is unattended, as the dome lights, if left on, can drain the vehicle's battery.
- ❖ Do not put pressure on the screen.
- ❖ Caution children to avoid touching or scratching the screen, as it may become dirty or damaged.

Safety Precaution

For safety reasons, when changing video tapes it is recommended that the vehicle is not in motion and that you do not allow children to unfasten seatbelts to change tapes or make any adjustments to the system. System adjustments can be accomplished using the remote control unit, while seatbelts remain fastened. Enjoy your Audiovox entertainment system but remember-safety of all passengers remains the number one priority.

Important Notice

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. In the interest of safety, the VOH684 should never be installed where it will be visible, directly or indirectly, by the operator of the motor vehicle.

Congratulations on your purchase of the Audiovox VOH684 drop-down TV / Video Monitor. The VOH684 has been designed to give you and your family many years of video entertainment in a mobile environment. Please read the directions that follow to familiarize yourself with the product and to ensure that you obtain the best results from your equipment.

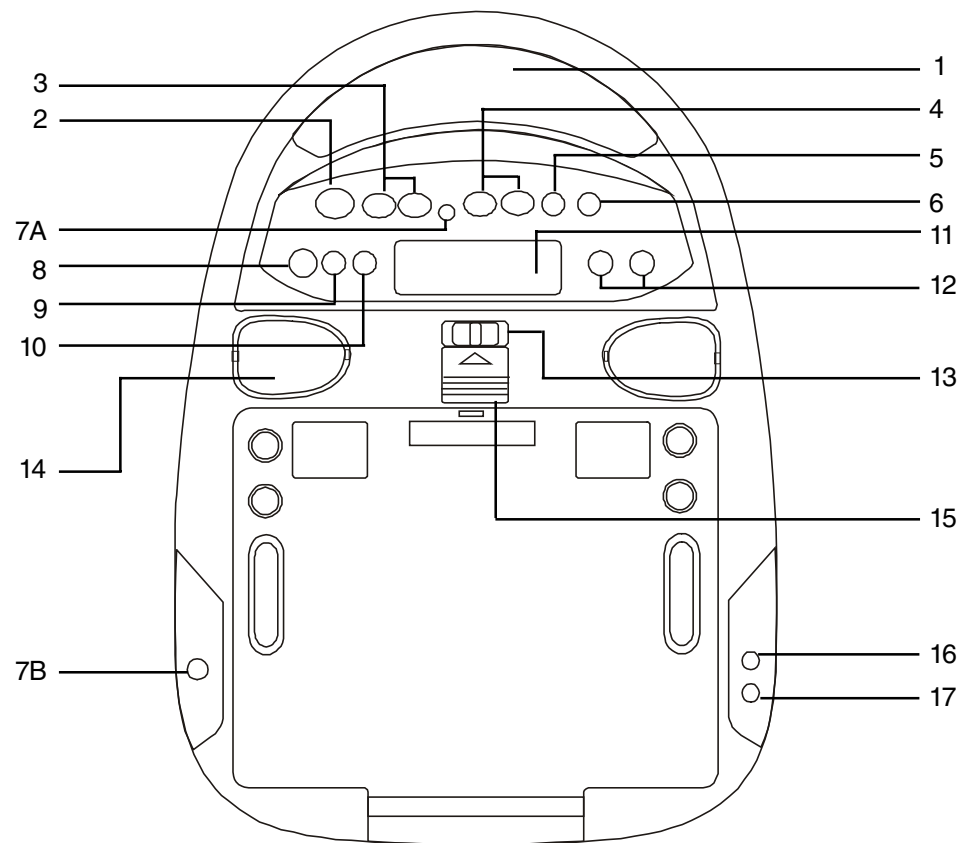
Please note: Installation options vary, see the individual owner's manuals for each component in your system to obtain a full understanding of each component's operation.

Television Reception

This entertainment system is designed primarily for viewing prerecorded movies or playing video games. Television reception in a moving vehicle will be limited and in some areas will not be possible due to weak and variable signal strength. Television viewing in a stationary vehicle will result in an improvement, but may still be marginal due to signal strength. The quality of the picture will not be consistent with home TV reception. Reception may be affected by weather and distance from TV station. A weak signal may cause the picture to roll, be snowy, or cause some color loss.

Features

- ❖ 6.8" TFT (Thin Film Transistor) Active Matrix LCD (Liquid Crystal Display) Monitor (4:3 Aspect Ratio)
- ❖ OSD (On Screen Display) for Control of Picture Quality and Functions
- ❖ Full Function Remote Control
- ❖ Television Tuner
- ❖ FM Radio
- ❖ Dual Channel Infrared Transmitters for IR Wireless Headphones
- ❖ Two Audio / Video Sources (inputs)
- ❖ Headphone / Speaker Amplifier
- ❖ Headphone Jacks (Monitor and Radio)
- ❖ Forward and Side Remote Sensor
- ❖ Dome Lights with Switch
- ❖ Backlit Controls for Low Light Operation
- ❖ Dual Channel Wireless Headphones



Front Panel

1. Dual Channel Infrared Transmitter – Used to transmit audio to wireless headphones.

TV/Video Controls

2. Power Button – Bright red when system is On, dim when Off.
3. Channel Up/Down – Changes the TV channel.
4. Volume Up/Down – Controls volume to headphone jack (TV EAR) and external speakers if connected.
5. Auto Program – Used to program local channels into the TV memory.
6. Source Select – Used to select A/V sources (TV, VCP, DVD or Game).
- 7A. Forward Sensor Eye – Allows the remote control to operate the VOH684's OSD (On Screen Display), control volume to wired headphone jacks (and optional external speakers), and to control the Video Cassette Player and other accessories.
- 7B. Side Remote Sensor Eye – Allows the remote control to operate the VOH684's OSD (On Screen Display), control volume to wired headphone jacks (and optional external speakers), and to control the Video Cassette Player and other accessories.

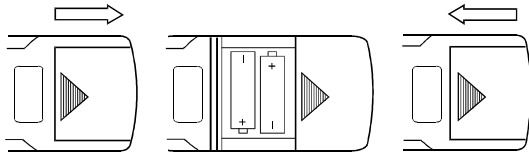
FM Radio Controls

8. Power Button for FM Radio – Bright red when system is On, dim when Off.

9. Recall Button – Used to access and display the preset radio channels in memory.
10. Memory Button – Used to store the desired channel into memory.
11. LCD Display Window – Used to display the FM radio station frequency.
12. Search Up/Down – Used to search for the desired FM radio station frequency.
13. Three position Dome Light Switch
 - Auto – Automatically switches on the dome lights in conjunction with the vehicle's interior illumination
 - Off – Turns off dome lights and prevents them from lighting when the switch is in the off position.
 - On – Turns on the dome lights.
14. Dome lights – provide additional interior vehicle illumination.
15. Screen Release – Slides in the direction of the arrow to release the drop down screen.
16. TV EAR Headphone Jack – Allows plug-in of wired headphones with 1/8" stereo plug for monitoring the video program audio.
17. RADIO EAR Headphone Jack – Allows plug-in of wired headphones with 1/8" stereo plug for monitoring the radio program audio.

NOTE: Audiovox recommends the use of the Audiovox HP275 Headphones.

REMOTE CONTROL OPERATION



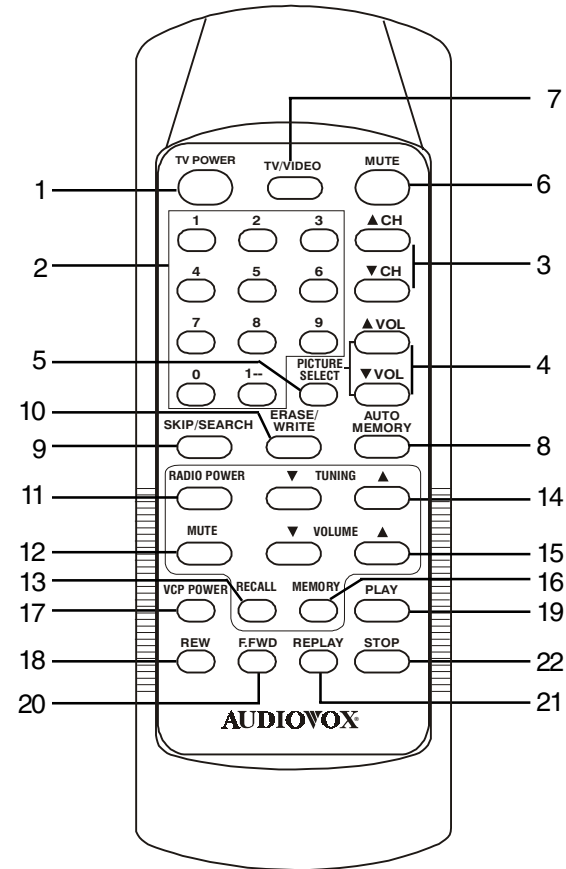
BATTERY INSTALLATION

Before attempting to operate your Remote Control, install the batteries as described below.

- 1) Turn the Remote Control face down. Press down on the ridged area of the battery cover and slide it off.
- 2) Install two "AAA" batteries as shown. Make sure that proper polarity (+ or -) is observed.
- 3) Slide the cover back until it clicks.

The remote control will operate the VOH684, Audiovox Televisions and Video Cassette Players. It is not a universal remote control and will not control equipment from other manufacturers.

If a universal remote control is to be used with the VOH684, choose the remote encoding scheme for Audiovox Televisions when programming the remote.



Remote Controlled TV and Monitor Functions

1. POWER ON/OFF

Press this button to turn the VOH684 On. The channel number or current video source will be displayed on screen and the picture will appear in a few seconds. Press the button again to turn the VOH684 Off.

2. DIRECT ACCESS (0-9) BUTTONS

Use these buttons to make a direct channel selection. The channel number chosen will be displayed on the screen for about 4 seconds. The direct access is carried out with 0-9 keys (0-69ch).

3. CHANNEL UP/DOWN BUTTONS

Use these buttons to advance to the next higher or lower channel. See also: SKIP / SEARCH BUTTON.

4. VOLUME UP/DOWN BUTTONS

Use these buttons to increase or decrease the volume level of the headphone jack or external speaker if installed. They are also used to make picture adjustments in picture select mode.

Note: These buttons will not affect the volume of wireless headphones or a wired RF modulator. When using these devices the volume must be adjusted with the headphone volume control or with your radio's volume control (see page 12, Headphones, or page 13, Wired FM Modulator).

5. PICTURE SELECT BUTTON

Each time this button is pressed, the on screen picture adjustment display cycles through "adjustment bars" for CONTRAST, BRIGHTNESS, COLOR and TINT. Once the desired adjustment bar is displayed, use the VOLUME UP/DOWN buttons to adjust the setting. The display will automatically turn off if no adjustments are made within 6 seconds, or if any other button is depressed.

6. MUTE BUTTON (Video Program)

Press this button to remove the sound at the headphone jack for the video program audio only. The screen will display the volume adjustment bar for 6 seconds, indicating that the sound has been turned off. Pressing the button again restores sound to the previously set level. The mute feature may also be released by pressing the VOLUME UP/DOWN BUTTONS.

7. TV/VIDEO BUTTON

Any video equipment connected to the AUDIO/VIDEO inputs can be viewed on the by pressing this button. Each time the button is pressed, the Audio / Video source will change in the following sequence VIDEO 1, VIDEO 2 and TV.

Remote Controlled Radio Functions

8. AUTO MEMORY BUTTON

When the AUTO MEMORY button is pressed, all channels in TV mode are searched and tuned; all the channels with signals detected are automatically stored. Please refer to page 2 for more information on TV reception.

9. SKIP/SEARCH BUTTON

This button selects between SKIP and SEARCH mode. In "SKIP mode" the TV only stops on channels that are programmed into memory when the CHANNEL UP/DOWN buttons are used. When the SKIP mode is off, the TV will stop on all active channels.

10. ERASE/WRITE BUTTON

When tuned to a channel press this button to store or erase the channel from memory. The stored channel numbers are displayed in "GREEN" on the screen and the non-stored channel numbers are in "RED". When the skip mode is on, the VOH684 will tune to only the stored channels when using the CHANNEL UP/DOWN buttons.

Remote Controlled Radio Functions

11. FM RADIO POWER ON/OFF

Press this button to turn the FM Radio On. The radio station frequency will be displayed on LCD display window. Press the button again to turn the FM Radio Off.

12. MUTE BUTTON (FOR FM RADIO)

Press this button to remove the sound at the headphone station. Pressing the button again restores sound to the previously set level.

13. RECALL BUTTON

Press the recall button to recall channel 1 to 6 from memory. Each press of the recall button will advance the station number. Stop pressing the RECALL button when the desired station preset (1-6) is displayed on the LCD.

14. TUNING UP/DOWN BUTTONS

Press the tuning UP/DOWN button to tune the radio frequency from a low to high frequency channel. The radio is tuned in 200 kHz step size. Pressing and holding the tuning buttons for more than two seconds will result in rapid radio tuning to the next strong station as displayed on the LCD window.

15. VOLUME UP/DOWN BUTTONS

Press the volume UP/DOWN button to increase or decrease the volume levels of the headphone jack.

16. MEMORY BUTTON

Tune to the desired radio station frequency. Press the memory button repeatedly until the desired preset number is displayed. Press and hold the memory button. **MEMO** will appear in the display. The radio station frequency is now stored in the preset number.

Remote Controlled VCP Functions

These features can only be used with an Audiovox Video Cassette Player, if this option was installed with your video package.

17. POWER BUTTON

This button is used to turn the VCP on and off.

18. "REW" REWIND BUTTON

If this button is pushed while the tape is stopped, the tape will rewind. If this button is pushed while the tape is playing, the VCP will go into rewind search mode. For more information consult the Audiovox VCP owner's manual.

19. PLAY BUTTON

Press this button to activate play mode while a tape is loaded into the VCP. This button may also be used to disengage search and pause modes. For more information, consult the VCP owner's manual.

20. "F.FWD." FAST FORWARD BUTTON

If this button is pushed while the tape is stopped, tape will fast forward. If this button is pushed while the tape is playing, the VCP will go into fast forward search mode. For more information on the search feature of the VCP, consult the VCP owner's manual.

21. REPLAY BUTTON

Pressing this button will rewind tape and immediately begin playback when the tape is fully rewound.

22. STOP BUTTON

Press this button to stop the tape.

CHANNEL SET UP

In order to easily access all available TV channels, it may be necessary to perform channel auto-programming whenever the vehicle's geographic location has changed, i.e. city to city, weak signal area.

1. Press the AUTO MEMORY button on the Remote Control Unit or the AUTO PROGRAM button on the drop down video unit. You will see the TV cycle through all its channels. The built-in microprocessor will automatically note each channel that is actively broadcasting in your area.
2. (A) To tune only strong clear channels with the CHANNEL UP/DOWN buttons, press the SKIP/SEARCH button on the Remote Control Unit until "SKIP MODE ON" is displayed on the bottom of the screen. The TV will now tune only to strong active channels when the UP or DOWN buttons are used on the monitor or remote control.
3. (B) To tune weak or marginal channels with the CHANNEL UP/DOWN buttons, press the SKIP/SEARCH button on the Remote Control Unit until "SKIP MODE OFF" is displayed on the bottom of the screen. Tune to the desired channel using the CHANNEL UP/DOWN buttons or go directly to the channel by using the 0-9 buttons on the Remote Control.

4. To ERASE a channel, press the ERASE/WRITE button on the Remote Control Unit until "MANUAL MEMORY XX ERASE" is displayed on screen. To STORE a channel, press the button until the MANUAL MEMORY XX ADD is displayed on screen.

Note: Please refer to page 2 for more information on TV reception.

FM Radio Operation

1. If using wired headphones, insert the headphone set plug into the headphone jack on the right side of the LCD pod labelled RADIO EAR. If using a switch the channel A/B switch to channel B for the FM radio. Channel A is used for video audio.
2. Press the Radio power on button. The LCD window will display the FM station frequency and memory channel number.
3. Press the tuning UP or DOWN button to select the desired radio station.
4. If the radio station is broadcasting in stereo, then LCD window will display STEREO.
5. Press the Memory button and select the preset number you wish to assign. The number can be selected from 1 to 6 sequentially. The selected number will flash. Press and hold the memory button until the display stops flashing. The preset will be stored after 2 seconds. The number will

then be displayed continuously. The number will be displayed continuously. The desired frequency is now. The unit can store 6 radio station frequencies using the above procedure.

6. Pressing the Recall button will scroll through the six presets.
7. Pressing the Volume UP or DOWN button in the remote control unit will set the desired volume level in the headphones.
8. Press the Mute button on the remote control unit to mute the sound in headphone and press Mute button again to restore the sound to the original level.

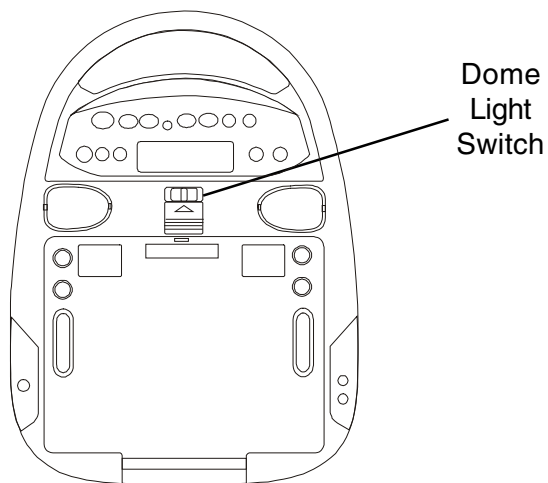
Turning the VOH684 On or Off

1. Sliding the screen release lock forward will unlock the LCD screen and it will drop down slightly. Pivot the screen downward until a comfortable viewing angle is reached. The internal friction will hold the screen in position while the system is in use.
2. Pressing the power button on the pod or the remote will turn the system on or off alternately. When in use the internal backlighting will illuminate the controls.
3. After the unit has been turned on and is displaying a picture, adjust the viewing angle, by pivoting the screen to optimize the picture quality.
4. Remember to turn the unit off and pivot the LCD to the locked position when not in use.

Operation

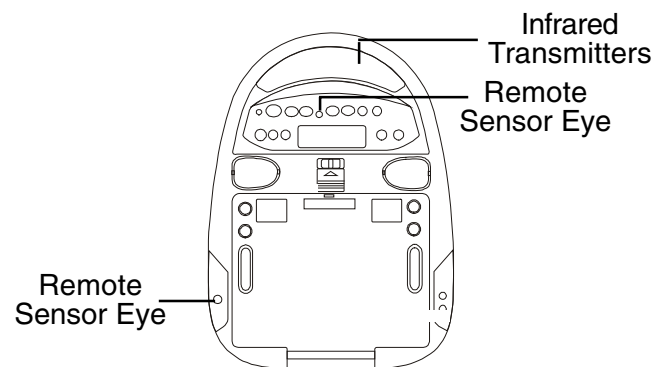
Overhead Dome Lights

The lights integrated into the VOH684 are controlled by a three position slide switch. Sliding the switch to the on position will turn the lights on. The off position will prevent the lights from turning on at all times and the auto position will allow the lights to turn on and off with the vehicle's interior lighting. Do not leave the vehicle unattended with the dome light switch in the on position, as this could result in a discharged battery.



Remote Sensor

The VOH684 incorporates an Infrared sensor which relays signals from the remote control to allow the VOH684 and VCP to be controlled simply by pointing its remote control at the remote sensor eye. This provides control of auxiliary equipment such as an Audiovox Video Cassette Player. The infrared sensor can relay signals from any manufacturer's remote controls to component connected to the Video 1 and 2 inputs, such as a DVD player. In this case you must use the remote control supplied with the DVD player.



Accessories

Wireless Headphones

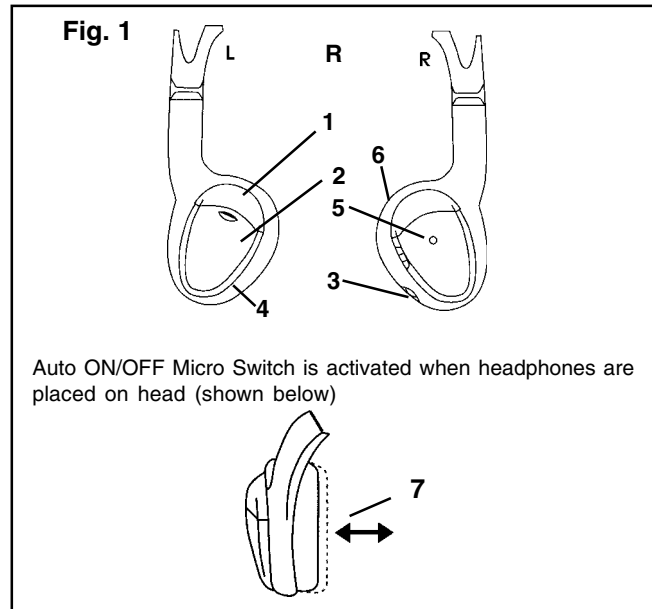
The VOH684 includes a built-in infrared transmitter and Audiovox wireless headphones (Part Number IR2CHS-(Two Channel). The volume can be adjusted with the control on each headset. The wireless headphones must be used within a line of sight from the transmitter, as infrared transmissions, like visible light travel only in a straight line.

Headset Special Features

- Dual Channel.
- Automatic Level Control prevents input signal over loading.
- Uses high frequency infrared light to assure a clean signal for clear reception.

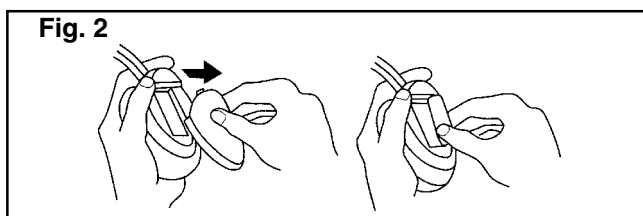
Controls and Indicators (Fig.1)

1. INFRARED PICKUP SENSORS – (Receives signals from transmitter)
2. BATTERY COVER
3. VOLUME CONTROL
4. POWER SWITCH
5. POWER INDICATOR LED
6. CHANNEL A/B SWITCH
7. AUTO ON/OFF MICRO SWITCH



Battery Installation (Fig.2)

1. Place two alkaline AAA batteries in the Headphone's battery compartment making sure that the battery polarity is correct.
2. Replace the battery cover.



HEADPHONE OPERATION

IMPORTANT: To prevent possible ear damage,
Read the following Carefully!

1. Turn the headphone volume down before turning on the power. Turn on the headphone power then increase the headphone volume to a comfortable level.
2. Before switching between channels A and B, remove headphones and turn the volume down because the signal of channel could be louder than the other.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

Product Specifications:

Operating range : up to 25 Ft.

Frequency Response : 35 – 18,000Hz

S/N ratio : 60 dB

Channel Separation : 45 dB

Optional Accessories

Wired Headphone

There are two 1/8" headphone jacks on the VOH684 that can be used with any standard stereo headphones. The jack, TV EAR, is used to listen to the video program audio. The audio volume is controlled by the TV VOLUME up/down buttons. The jack, RADIO EAR, is used to listen to the FM broadcast. The audio volume is controlled by the RADIO VOLUME up/down buttons. Remove the protective plastic cover to access the jacks. Remember to replace the cover when the jacks are not in use.

Wired FM Modulator

Your video system may be equipped with an RF modulator, that allows you to listen to the VOH684's video audio signal by tuning your vehicle's radio to the selected frequency, (88.7 or 89.1 - Check with your installer) and turning on the remote mounted RF modulator switch. (In most cases this toggle switch will be located underneath the driver's side of the dash, check with your installer for the exact location.) Whenever the RF modulator is on, broadcast radio reception of the vehicle's radio will be diminished. Setting the remote mounted toggle switch off will allow normal radio reception.

Video Output

The VOH684 provides a video output for an optional video monitor(s). (Refer to page 7 of the installation guide for more details.) This output will provide a video signal that duplicates the signal displayed by the VOH684 to an additional monitor or video display. Please see your installer for more information.

Audiovox Video Cassette Player (Aux Video 1)

In most installations a VCP will be connected to the "Video 1" input. To view a video cassette, turn the VOH684 On and press the source button on its control panel or the TV / Video button on the remote control

until "Video 1" is displayed on the screen. The VCP may also be operated with the remote or the buttons on its face. The VOH684 is now ready to play the audio and video signals from the VCP if it is connected to the "Video 1" input. Inserting a tape into the VCP will turn it on and automatically activate the play mode. If a rewind tape had already been loaded into the VCP, prior to its activation press play on the VCP or on the remote control to view the tape. For more information see the operator's manual accompanying your VCP.

Aux Video 2

The second video input may be connected to a DVD player, video game system, or other audio/video input. To play the Video 2 source, turn the VOH684 on and press the source button on the VOH684 or the TV/ Video button on the remote control until "Video 2" is displayed on the screen. Turn the source component on with its power button or remote control. The VOH684 is now ready to play the audio and video signals from the source connected to video 2 inputs.

Troubleshooting

<u>PROBLEM</u>	<u>SOLUTION</u>
Poor TV reception	<ul style="list-style-type: none"> • Perform auto programming of the tuner. • Verify antenna condition. • 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. Please refer to page 2 for more information on TV reception.
Poor vehicle in dash radio reception (FM modulator installed)	<ul style="list-style-type: none"> • Check the condition of the vehicle's radio antenna. • Verify that the antenna is fully raised. • If a wired RF modulator has been installed, verify that its switch is turned to the off position.
IR sensor inoperative	<ul style="list-style-type: none"> • Verify that the batteries in the remote are fresh. • Verify that the remote sensor eye is not obstructed. • Verify that the infrared transmitter is affixed over the sensor eye of the component to be controlled.

Replacement Parts

Remote Control	136B2063
IR Sensor Cover	102B3596
Headphone Jack Cover	102B3597

Specifications

LCD Backlighting	Edge Light Tube Cold Cathode Fluorescent Light (CCFL)
Resolution	1152 (RGB) x 234
Pixels	269,568
Operation Temperature	0 - 40 °C 32 - 104 °F
Storage Temperature	-20 - 80 °C 4 - 176 °F
Backlight Life	10,000 Hours
Sensitivity	35db
Video Display System	NTSC
Audio Output	0.6W @ 16 Ohms



36 MONTH LIMITED WARRANTY

Applies to Audiovox Mobile Video Products

AUDIOVOX ELECTRONICS CORP. (the Company) warrants to the original retail purchaser of this product that should this product or any part thereof, under normal use and conditions, be proven defective in material or workmanship within 36 months from the date of original purchase, such defect(s) will be repaired or replaced with reconditioned product (at the Company's option) without charge for parts and repair labor.

To obtain repair or replacement within the terms of this Warranty, the product is to be delivered with proof of warranty coverage (e.g. dated bill of sale), specification of defect(s), transportation prepaid, to the Company at the address shown below.

This Warranty does not extend to the elimination of externally generated static or noise, to correction of antenna problems, to costs incurred for installation, removal or reinstallation of the product, or to damage to tapes, discs, speakers, accessories, or vehicle electrical systems.

This Warranty does not apply to any product or part thereof which, in the opinion of the Company, has suffered or been damaged through alteration, improper installation, mishandling, misuse, neglect, accident, or by removal or defacement of the factory serial number/bar code label(s). THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY PURCHASER FOR THE PRODUCT.

This Warranty is in lieu of all other express warranties or liabilities. ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY MUST BE BROUGHT WITHIN A PERIOD OF 48 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER. No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damage so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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