## ////DVE\T

Model: CAM500

PICK UP TRUCK TAILGATE HANDLE CAMERA

**Installation Manual** 





### ·Features

- Aluminum Housing
- Low Profile, Slim Design
- High Resolution CMOS camera
- 170 Degree Viewing Angle
- Waterproof Under Vehicle Connections
- Selectable Parking Lines and Viewing Angle

Size: 85\*140 mm

Material: Both-side coated paper 127g

140.00 mm-



# 3 YEAR LIMITED WARRANTY

Applies to Audiovox Series Control Modules and Sensors.

AUDIOVOX Electronics Corporation (the Company) warrants to the original retail purchaser of this product that should this product or any part thereof, (other than transmitters) 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 new or reconditioned product, (at the Company's option) without charge for parts or 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 an approved warranty station. This Warranty is not assignable or transferable.

This Warranty does not cover damage to the vehicle's electrical system or costs incurred for removal or reinstallation of the product. This Warranty does not cover batteries nor 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, abuse, neglect, accident, or by removal or defacement of the factory serial number/bar code label(s).

This Warranty is in lieu of all other express warranties or liabilities. ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, SHALL BELIMITED TO THE DURATION OF THIS WRITTEN WARRANTY ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY AND HEREOF OF ORIGINAL POR MERCHANTABILITY WINST BE BROUGHT WITHIN A PERIOD OF 48 MONTHS FROM THE 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. 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.

The company does not warrant that this product cannot be compromised or circumvented. The CTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY'S LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY

Audiovox Electronics Corporation, 150 Marcus Blvd., Hauppauge, New York 11788 • 1-800-645-4994

6

#### Troubleshooting

Symptom	Solution	
Picture is Blurry	Clean the camera lens	
No image from backup camera when vehicle placed in reverse	Check that camera is functioning correctly.     Check that power wire is attached to reverse power.     Check that backup camera is attached to input.	

#### Table of Contents

Warnings	
Packing List	_
8	_
Camera Installation	3
Specifications	/
•	
Troubleshooting	·····ɔ

#### Warnings

The product is intended to assist in safe driving and to allow the driver to have a broader rear view while the vehicle is in reverse. You, as the driver, are solely responsible for the safe operation of your vehicle and the safety of your passengers according to local traffic regulations. Do not use any features of this system to the extent it distracts you from safe driving. Your first priority while driving should always be the safe operation of your vehicle. Audiovox Electronics Corporation cannot accept any responsibility whatsoever for accidents resulting from failure to observe these precautions or safety instructions.

- This product utilizes high voltage. Any unauthorized modifications or damage to the product may result in electrical shock. Handle all components with care. Inspect regularly for damage to components and cabling.
- 2. You are responsible for ensuring that the installation of this product does not void or affect the vehicle manufacturer's warranty. Audiovox Electronics Corporation or its subsidiaries are not liable in full or in part for improper installation resulting in loss or damage to your property, or for voiding all or part of the vehicle manufacturer's warranty.
- 3. Do not apply excessive force to any of the components contained within this kit. Excessive force used before, during or after installation that results in a damaged or nonfunctional part will void all warranties.
- 4. Please follow the procedures in this installation manual. Improper installation or modification of this product will void all warranties.

2

5

#### Packing List

Parts	Part #	Quantity
Camera	CAM500	1
Extension Cable	31472170	1
Power Cable	31472160	1
Hardware Kit	31472010	1
Manual	31472020	1

#### Installation

- Open the vehicle tailgate. Remove the interior panel covering the inside of the tailgate.
- Carefully remove the screws holding the Tailgate handle in place from inside the door. Use caution when disconnecting the linkage for the Lock and opening mechanism. If needed take a picture of the layout for re-assembly later. Remove the Tailgate handle completely.
- Examine the handle completely for a location to mount the camera.
   Double check to make sure this will not interfere with re-installation of the handle in the tailgate BEFORE going further.
- Place the double sided tape (included) on the outside of the handle to use as a template for where you will drill. Remove only one side of the tape protection and apply to the handle. (Make sure the handle is clean and dry).
- Using a Uni-bit drill a 19mm hole in the handle using the tape template
  you just placed on the handle. Only drill the hole to the same size as the
  opening in the tape.
- Remove the outside covering on the tape and mount the camera in the handle at the correct angle. Use the included flat washer and nut to tighten the handle from behind. Do not over-tighten.
- Re-Install the handle into the tailgate.
- Route the camera cable straight down through the tailgate to the bottom.
   Use an existing hole or drill a hole in the bottom of the tailgate to be able
   to route the camera cable under the truck. If drilling a hole use a
   grommet to protect the cable from being pinched or cut by sharp edges
   (not included).
- 9. Route the extension cable to the front of the vehicle as needed to reach your monitor. Do not route the cable in any area that it could be caught in the drive shaft or burned by the exhaust. Secure the cable as needed so it is not damaged by any debris or items that may pass under the truck.

- 10. Once inside the vehicle connect the Yellow RCA Video connection to the monitor Video input. Connect the power harness to a power source that only has power when the vehicle is in the reverse gear or as required by your monitor. If you connect it for constant or ignition sourced power the camera will send an image at all times. This may cause your monitor to stay on. Refer to your monitors directions for a "reverse trigger" if needed.
- 11. Verify that you camera is angled correctly, and if you would like to make any change at this time you can.
- 12. To disable parking lines cut the Green loop on the Camera harness in the tailgate. To reverse the camera image if needed cut the blue loop. If cut make sure you wrap and seal these wires with weather insulating tape to insure these do not become corroded. DO NOT cut the loop off; just cut the loop so you could re-connect later if needed.
- Once you have confirmed operation is correct secure the camera lead inside the tailgate using the supplied stick on tie downs and wire ties. This will keep the wire from slapping around inside the tailgate. Replace the tailgate inner panel.
- Secure the connection under the vehicle. Do not tie down the
  connection from the tailgate as it should be able to be disconnected in
  order to remove the tailgate. Insure the water proof connection is
  completely closed and tight.

#### Specifications

- 1. Voltage: DC12V
- Resolution: 720 x 480
- 3. Minimum Illumination: < 0.3 Lux
- 4. Viewing Angle: 170 degrees Wide Angle Extended View
- 5. Image Display: Selectable Normal/Reverse Image
- 5. Selectable Parking Line On/Off