

Model: CAM300/CAM310

**Full or Partial** 

**Frame Camera** 

**Installation Manual** 





### Features

- Camera Fully Adjustable on all 3 Axis for off centre mounting.
- Frame may be mounted above or below license plate.
- High Resolution, 1/4 inch CMOS Color Camera
- Waterproof Housing
- 160 Degree Wide View Angle
- Selectable Image: Normal/Reverse
- 12v 24v

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# 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 non-functional 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.

## **Product Description**

This fast and easy to mount back up camera allows you to use the license frame mounting bolts to securely attach a high quality, fully adjustable reversing camera. The camera is perfect for use on your car, truck, or van.

This Wired Camera is designed for use with an Advent monitor but is compatible with most monitors/TFT screens and can be connected using a standard RCA connector.

# **Packing List**

- CMOS Camera 1qty
- Mounting Screw 1 qty
- Power & Adaptor Cables 1 qty
- Owner's Manual 1 qty

### **Part Numbers**

Description	Barcode	Quantity
CAM 300B		1
Black Full Frame Camera	30192390	1
Power Cable & Adaptor Cable	30192160	1
Mounting Screw	30192010	1
Manual	30192020	1
CAM 300C		1
Chrome Full Frame Camera	30202390	1
Power Cable & Adaptor Cable	302020160	1
Mounting Screw	30202010	1
Manual	30202020	1
CAM 310B		1
Black Partial Camera	30212390	1
Power Cable & Adaptor Cable	30212160	1
Mounting Screw	30212010	1
Manual	30212020	1
CAM 310C		1
Chrome Partial Camera	30222390	1
Power Cable & Adaptor Cable	30222160	1
Mounting Screw	30222010	1
Manual	30222020	1

### **Camera Installation**



- 1. Remove the rear license plate.
- 2. Examine the vehicle to determine the best way to run the power wires to the reverse lights and the extension cable through the car.
- 3. The Camera can be mounted above or below the plate. Determine the mounting location that best suits your needs. Be sure to verify that your installation plan complies with local laws and requirements. Some states require that the state name, registration stickers, and license number are not obstructed in any way.
- 4. Place the frame camera in front of the license plate and line up the holes. Fasten the camera mounting bracket and the license plate to the vehicle using the anti-theft screws provided. After installation of screws with the tool provided, place the tool in the glove compartment or other safe place for future use.

NOTE: To adjust the viewing angle, loosen the locking ring on the front of the camera around the lens and then move the 'camera ball' to the suitable angle and tighten the locking ring back up.

There is an alignment mark on the camera to show the top of the image.

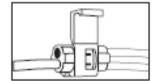
5. Route the camera wiring into the vehicle. The wire can be run through an existing grommet, behind a tail lamp, under the trunk molding, or if necessary, through a 5/8 inch hole drilled near the vehicle's rear

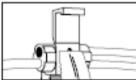
license plate. When choosing a wiring path, make sure the cable will not be damaged or pinched, as this may cause a short circuit that is not covered by the warranty. If drilling a hole, perform the following steps:

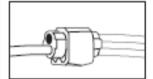
- a) Acquire a 5/8 inch drill bit, rust preventive, all of which can be purchased at a hardware store.
- b) Check behind the intended drilling location before drilling to verify that no wires or mechanisms can interfere with or be damaged during drilling.
- c) Check for interference with license plate lights and the hatch release switch and/or mechanism.
- d) Drill a 5/8 inch hole at the selected location.
- e) Coat the edge of the hole with rust preventative.
- f) Route the camera cable through the grommet and then through the hole.
- g) Insert the grommet in the hole to keep water from entering the vehicle.
- 6. Assemble camera and mount on the vehicle.

### Wiring the Camera to the Vehicle's Reverse Lamp

- 1. Locate the reverse lamp in the tail light assembly.
- 2. Using the tap connector supplied, perform the following steps:
  - a) Place the un-stripped positive lead from the tail lamp in the run channel, which runs completely through the connector.
  - b) Insert the un-stripped red power wire from the camera completely into the other channel in the connector.
  - c) Make the connection between the wires by crimping down the metal connector with a pair of pliers, making sure the metal is flush with the plastic insulator.
  - d) Close the top plastic hinged cover until latched.
- 3. Attach the black wire to the ground (negative).
- 4. Repeat the above steps for the red wire.







### Connecting the Video Signal

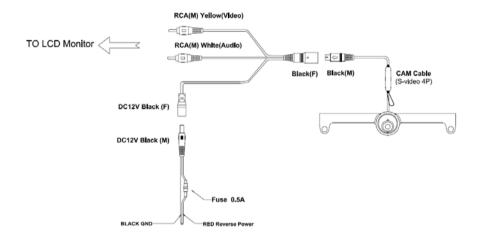
- 5. If used with an Advent LCD Monitor such as LCD4WM or LCDM42 the camera power and signal will be provided through a single cable to the monitor (supplied with the monitor).
- 6. If using an alternative monitor, use the adaptor harness to split the signal to RCA connections then connect to the female RCA input on the alternative monitor.

### **Reverse/Normal Image Adjustment**

The camera comes standard with a reversed image, designed for mounting at the rear of the vehicle. If you need to change to a forward or normal image view, clip the blue jumper wire loop on the wiring cable (labeled "Mirror Selection" below) to change the camera image to normal. Secure the clipped wires with electrical tape. To change back to reverse image view, reconnect the blue wires and secure with electrical tape.

### **Camera Wiring**

Note: If used with an Advent LCD Monitor such as LCD4WM or LCDM42 the camera power and signal will be provided through a single cable to the monitor (supplied with the monitor).



# **Specifications**

1. Voltage: DC9V-DC28V

2. Current: 50 mA

3. Signal System: NTSC

4. Image Sensor: ¼" CMOS Sensor
5. Horizontal Resolution: 480 lines
6. Viewing Angle: 160 degrees

7. Minimum Illumination: 0.7 Lux

8. Image Display: Selectable Normal/Reverse Image

9. Adjustable Viewing Angle

10. Dimensions:

• Camera: 26mm W x 30mm L

# **Troubleshooting**

Symptom	Solution	
No video signal appears while reversing the vehicle	Check the rear view camera lens and clean if needed.	
	2. Check the rear view camera wiring connection and RCA connection.	
	3. Check the Fuse – if blown replace ONLY with fuse of equal amperage.	
Video image is not sharp enough	Clean the camera lens.	



# 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 workmanship within 36 months from the date of original purchase, such defect(s) will be repaired or replaced with new or product or any part thereof, (other than transmitters) under normal use and conditions, be proven defective in material or econditioned product, (at the Company's option) without charge for parts or repair labor.

coverage (e.g. dated bill of sale), specification of defect(s), transportation prepaid, to an approved warranty station. This To obtain repair or replacement within the terms of this Warranty, the product is to be delivered with proof of warranty Warranty is not assignable or transferable.

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