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ELECTRONICS CORP.

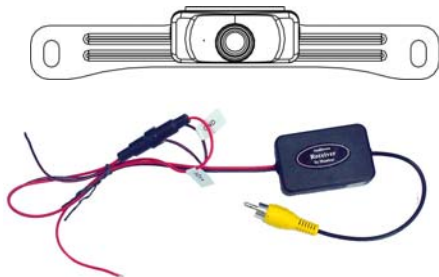
Model ACA200

License Plate Rear Mounted Camera

With Wireless Receiving Module

Installation Manual

FEATURES:



- High Resolution: 1/4" CMOS Color Camera
- Compact Zinc Alloy Die Cast Body
- Waterproof Housing
- 130 Degree Wide View Angle
- Selectable Image: Normal/Reverse
- Wireless Transmitter
- Adjustable Camera Angle

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Warnings

This 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.

1. 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 revolutionary camera design integrates a wireless backup camera with your vehicle's rear license plate without covering the license plate. The camera is easy to mount on your car, truck, or van with the bracket being hidden by your license plate.

This Wireless Camera transmits a signal using a 2.4 GHz frequency. Reception can be affected by use of other wireless products utilizing the same frequency, i.e. cell phones and Bluetooth products. Static or scrolling lines on the monitor are a normal and may be caused by other wireless products. This is not the result of a defective product.

The wireless receiver has been developed to convert a hard wire camera/monitor system to a wireless operation. The following information contained in the installation manual is for camera backup systems. Note: this product can be used on any Camera/Monitor system.

Packing List

1. CMOS Camera – 1 qty
2. Wireless Receiving Module – 1 qty
3. Theft-proof Screws: 2 each course thread and machine thread
4. Flat Washer, 6mm – 2 qty
5. Anti-Theft Allen Key – 1 qty
6. Wire connectors:
 - a) Tap connectors-3 qty
 - b) Ring connector-1 qty
7. Warranty Card
8. Owners Manual

Camera Installation

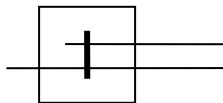
NOTE:** The transmitting antenna is located in the camera's wire shielding. When installing the camera wire, straighten the wire for best transmission, allowing the monitor to receive the clearest image possible. **DO NOT CUT THIS WIRE.

1. Remove the rear license plate to determine the best way to run the power wires to the reverse lights.
2. The camera cable can be routed through an existing grommet, or through a 5/8 inch hole drilled near the vehicle's rear license plate. Be sure to check behind the intended drilling location before drilling to ensure no wires or mechanisms interfere or could be damaged during drilling. Check for interference with license plate lights and the hatch release switch and/or mechanism. If not using an existing factory grommet, drill a 5/8 inch hole at the selected location. Coat the edge of the hole with rust

preventative. Route the camera cable connector through the hole and insert the grommet into the hole to prevent water from entering into the vehicle.

3. Place the camera bracket behind 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.
4. Wire the Camera to the vehicle's reverse lamp.
 - a) Locate the reverse lamp in the tail light assembly. Using the tap connector supplied, perform the following steps:
 - i. Place the un-stripped positive lead wire on the run channel.
 - ii. Insert the un-stripped red power wire completely.
 - iii. Fold the tap connector back over the wires and make the connection by crimping the u-contact down flush with the plastic insulator.

- iv. Close the top hinged cover until latched.
- b) Attach the black wire to the ground.
 - i. Place the un-stripped ground lead wire on the run channel.
 - ii. Insert the un-stripped black ground wire completely.
 - iii. Fold the tap connector back over the wires and make the connection by crimping the u-contact down flush with the plastic insulator.
 - iv. Close the top hinged cover until latched.

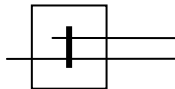


Tap/Run Connection

- c) Reverse/Normal Image Jumper: The blue jumper wire loop is located at the camera cable connector, installed in the harness. The camera image is pre-wired for reverse image. If mounting the camera on the front of the vehicle, cut the blue wire loop to change the camera image to normal. Secure cut wires with electrical tape.

Receiver Installation

The receiver must be installed in the vehicle's trunk or interior. The receiver are not weather proof and must be located in a dry location

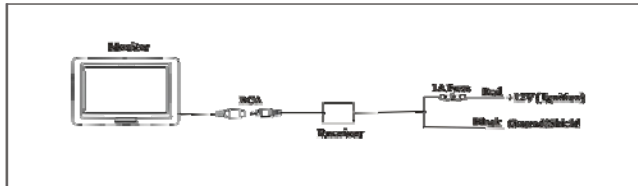


Tap/Run Connection

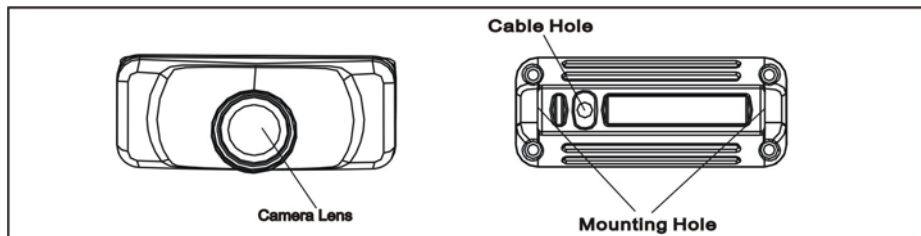
1. Wiring the receiver connection.
 - a. Wiring the receiver to the vehicle. Choose a source that only has power when the vehicle is running. Connect as shown using the tap connectors supplied.
 - i. Place the unstripped ignition source wire on the run channel
 - ii. Place the unstripped red power wire completely.
 - iii. Fold the tap connector back over the wires and make the

connection by crimping the u-contact down flush with the plastic connector.

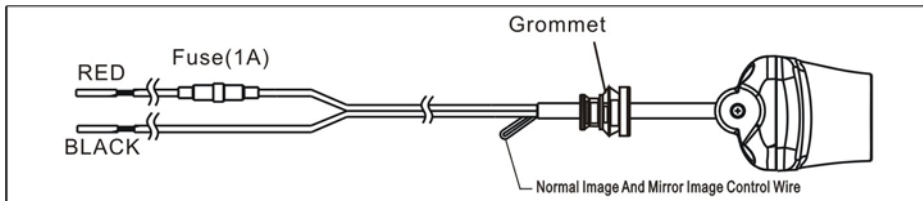
- iv. Close the top hinged cover until latched.
 - b. Black wire-Chassis/Ground. Using ground ring supplied,
 - i. Place stripped wire (1/4") inside connector.
 - ii. Crimp the connector using a crimping tool to secure the wire.
 - iii. Connect to a vehicle body grounded screw (bare metal) directly.
2. Wiring the receiver to the monitor
- a. Connect the receivers RCA connector to the monitor RCA connector.



Camera Wiring (Color Camera View)



Camera Wiring



Specifications

1. Voltage: DC12V
2. Operating Current:
 - a. Transmitter: 130 mA
 - b. Receiver: 180mA
3. Signal System: NTSC
4. Image Sensor: 1/4" CMOS Sensor
5. Horizontal Resolution: 480 lines

6. Viewing Angle: 130 degrees
7. Minimum Illumination: 0.3Lux
8. Image Display: Selectable Normal/Reverse Image
9. Wireless Transmission Operating Frequency: 2.4GHz
10. Operating temperature: 0°C-50°C
11. Adjustable Viewing Angle
12. Camera Outer Dimensions: 25mm (W) x 30mm (H) x 62mm (D)

Troubleshooting

| Symptoms | Solutions |
|-------------------------|---|
| No video signal appears | 1. Check the rear view camera lens and clean if |

| | |
|---|---|
| while reversing the vehicle | needed. 2. Check the rear view camera wiring and connection. |
| Video image is not sharp enough | Clean the camera lens. |
| Symptoms | Solutions |
| The Monitor is not on after the vehicle is started and vehicle is in reverse? | Check the monitor and the receiver wiring and connection. |
| No video signal appears while reversing the vehicle? | Check the rearview Camera wiring connection. |

| | |
|----------------------------------|-------------------------------|
| Video image is not sharp enough? | Clean the lens of the camera. |
|----------------------------------|-------------------------------|

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- a. This device may not cause harmful interference, and
 - b. This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for

compliance could void the user's authority to operate the equipment



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