

ROV-1000 (CHAMELEON)



10.2" Overhead DVD Player

Installation Manual

Raymedia Co., Ltd

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Important safety instructions

- ✓ **Read these instructions.**
- ✓ **Keep these instructions**
- ✓ **Follow all instructions**
- ✓ **Caution: Fragile, do not drop!**
- ✓ **Do not use benzene, thinner, solvents or any other chemical for cleaning**
Wipe the cabinet with a soft cloth
- ✓ **Use only a soft, dry cloth to clean the outside of your ROV-1000 and any peripherals.**
- ✓ **Keep hands or materials away from the TFT LCD monitor to avoid surface scratches.**
- ✓ **Push the panel buttons gently to avoid damage to the button switch.**
- ✓ **Close the unit when not in use.**
- ✓ **Do not leave the unit's dome light on while the vehicle is unattended. The dome light could drain the vehicle's battery.**
- ✓ **When not in use, place the remote control and headphones where they will not be damaged.**
- ✓ **Before putting on headphones, always adjust the volume setting at the lowest level to avoid possible hearing damage.**



WARNING: To prevent fire or Shock hazard. do not expose the unit to rain or moisture. To avoid electrical shock, do not open the cabinet (or back). Refer servicing to qualified personnel only

Safety Precaution



This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury



Important: This manual contains important safety and operating information. Please read and follow the instructions in this manual. Failure to do so could result in personal injury, death, and/or damage to your ROV-1000 and/or to your vehicle.



Warning: When using your ROV-1000, it is your sole responsibility to secure and use the device in a manner that will not cause accidents, personal injury or property damage, or in any manner obstruct your view or interfere with the operation of vehicle safety equipment.



It is your sole responsibility that this device is properly installed and that these operating instructions are read carefully, understood, and used consistent with the laws of operation for any state or country in which you use the device and with common sense. Failure to do so may result in an accident and personal injury, death, and/or property damage to your ROV-1000 and/or to your vehicle.

Warning: This product utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



This symbol indicates important instructions accompanying the product.

CAUTION: DVD PLAYERS USE AN INVISIBLE LASER BEAM, WHICH CAN CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE PLAYER CORRECTLY AS INSTRUCTION.



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1. Introduction

The ROV-1000 unit is intended for overhead, drop-down installation only. It is not designed for seat-back or any other type of mounting. When installed, rear-seat passengers should be able to comfortably view ROV-1000.



Warning: Do not install ROV-1000 where it will be within the driver's view.

1.1 System Accessories

The ROV-1000 10.2" Overhead DVD Player system is sold with the following accessories.

- ✓ ROV-1000 10.2" Overhead DVD Player
- ✓ Remote control and battery
- ✓ Steel mounting bracket
- ✓ External cable assembly (20pin Power / Signal harness)
- ✓ Power fuse cable (3.5 meter)
- ✓ Operation manual
- ✓ Installation manual
- ✓ Screws (Self tapping screw 6EA, Machine screw 4EA)

Note: Installation materials sold separately include a shroud for a professional fit. Raymedia Co., Ltd highly recommends that you contact a professional to ensure proper installation. To locate a professional installer in your area, contact your retailer.

It is your sole responsibility that installation is completed properly and will not result in personal injury, death, and/or damage to your ROV-1000 and/or to your vehicle.



1.2 Optional Accessories (not included in standard packaging)

- ✓ TV Tuner card
- ✓ FM Transmitter card
- ✓ Plastic shroud

2. Installation Overview

Generally, it is best to install the ROV-1000 unit in place of the vehicle's dome light. For vehicles with factory-installed overhead consoles in the headliner, consult the console manufacturer for complete installation instructions. Professional installation is recommended.

The exact method for mounting the ROV-1000 unit will vary from vehicle to vehicle. Here is an overview of the installation process:

1. Unpack ROV-1000 and identify all components.
2. Review and become familiar with the operating and installation literature. Note electrical requirements and determine the installation technique best suited to the vehicle.
3. Determine installation locations for all components, noting all potential obstacles.
4. Prepare the vehicle for installation ;
 - ✓ Locate an accessory power source (+12V when the ignition key is in the ACC and "on" positions; 0V when the ignition is turned to "off"). Also locate a constant power source (+12V DC at all times) as well as a good grounding point. These connection points are typically found at the ignition switch, fuse box, radio, etc.
 - ✓ To gain access to the vehicle's wiring, remove the ceiling panel and any interior trim, using an upholstery hook tool if necessary.
 - ✓ Remove vehicle dome light, if necessary.
 - ✓ Cut any required access holes (headliner, other trim components, etc.).
 - ✓ If shroud will be used, additional trimming of the shroud may be required to conform to the vehicle roof.



5. Route the power and A/V cables and any other component/accessory wiring throughout the vehicle, protecting wiring from sharp edges. For guidance, refer to the wiring diagram on page 10.
6. Connect all electrical components, insert a DVD, and verify that all system functions work properly prior to final mounting in the vehicle.
7. Mount ROV-1000, following the instructions provided in this manual.
8. Recheck all system functions to ensure that wiring is connected properly and that no wires are kinked or pinched.



Warning: Failure to properly follow these instructions could result in damage to the vehicle, it's electronic system, other property, or personnel injury and/or death

3. Mounting ROV-1000

Recommended Tools and Equipment

- ✓ Upholstery hook tool (for removal of panels, if necessary)
- ✓ Scribe (to mark trim ring if used)
- ✓ #1 and #2 Phillips screwdrivers
- ✓ Utility knife, razor knife, or shears
- ✓ Misc. electrical connectors ((to connect to vehicle power source). Requirement will vary from vehicle to vehicle)
- ✓ Wire strippers
- ✓ Electrical tape / Masking tape
- ✓ Multi-meter (to verify correct voltages and continuity ; Raymedia Co., Ltd does not recommend using a test light or logic probe for this purpose)

Depending on the roof geometry of the particular vehicle in which you are installing ROV-1000, there are two installation options: Attaching the unit directly to the roof supports with the steel mounting bracket alone, or installing it with both the shroud and the steel mounting bracket. See Figure 1.

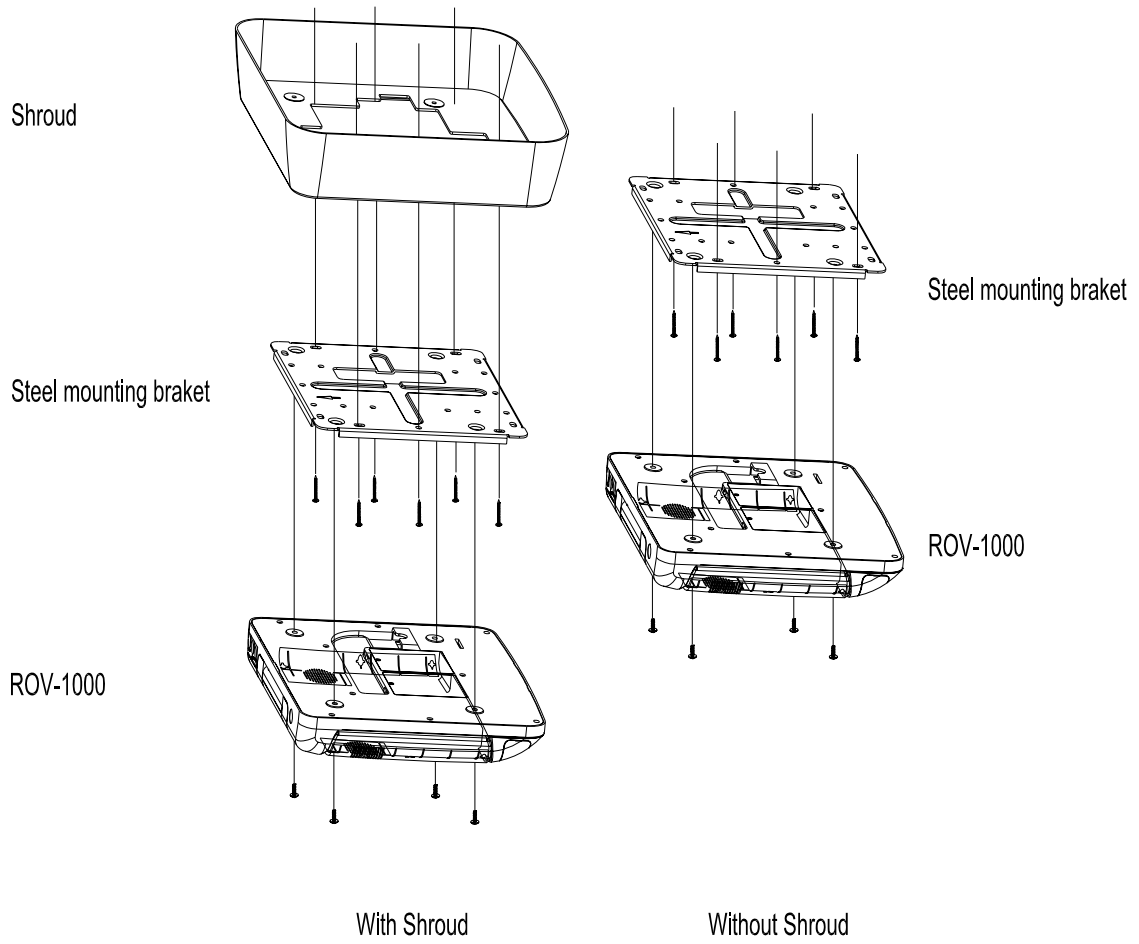


Figure 1.



Note: The following mounting sequence may be modified based on the installation option chosen.

1. With panels, trim and dome light removed, install the video monitor temporarily to the vehicle roof by opening the unit and inserting bolts through the bolt holes directly into the roof supports. Leave a gap between the headliner and the outer flange of the video monitor.
2. Following the contour of the roof, mark the area to be trimmed on the shroud so that it will fill the gap between the headliner and outer flange
3. Trim the shroud. Using a sharp utility knife or shears, score the plastic along the cutline with several passes, cutting a little deeper each time. When you have cut about halfway through the plastic, bend it back and forth several times for a clean cut.
4. Remove the video monitor and hold the shroud in place, checking the fit.
5. Make minor adjustments, if necessary.
6. Attach ROV-1000 and shroud using screws through the perimeter screw bosses. Use spacers provided to support shroud as required. Do not over tighten. This can cause the assembly to distort or bend. . Use of screw locking compound recommended.
7. If using the Steel mounting bracket, secure it to the roof support cross-members.
8. Attach ROV-1000 (alone or as part of the shroud assembly). The bolts should contact the roof support cross-members directly with no gap between the bolt and the roof structure. Be sure that bolts do not pierce the outer roof skin when fully fastened to the cross-member.



Warning: Failure to properly follow these instructions could result in damage to the vehicle, it's electronic system, other property, or personnel injury and/or death



4. Electrical Connections

1. Connect the power cable and A/V components to the appropriate vehicle electrical connections. See Figure 2.

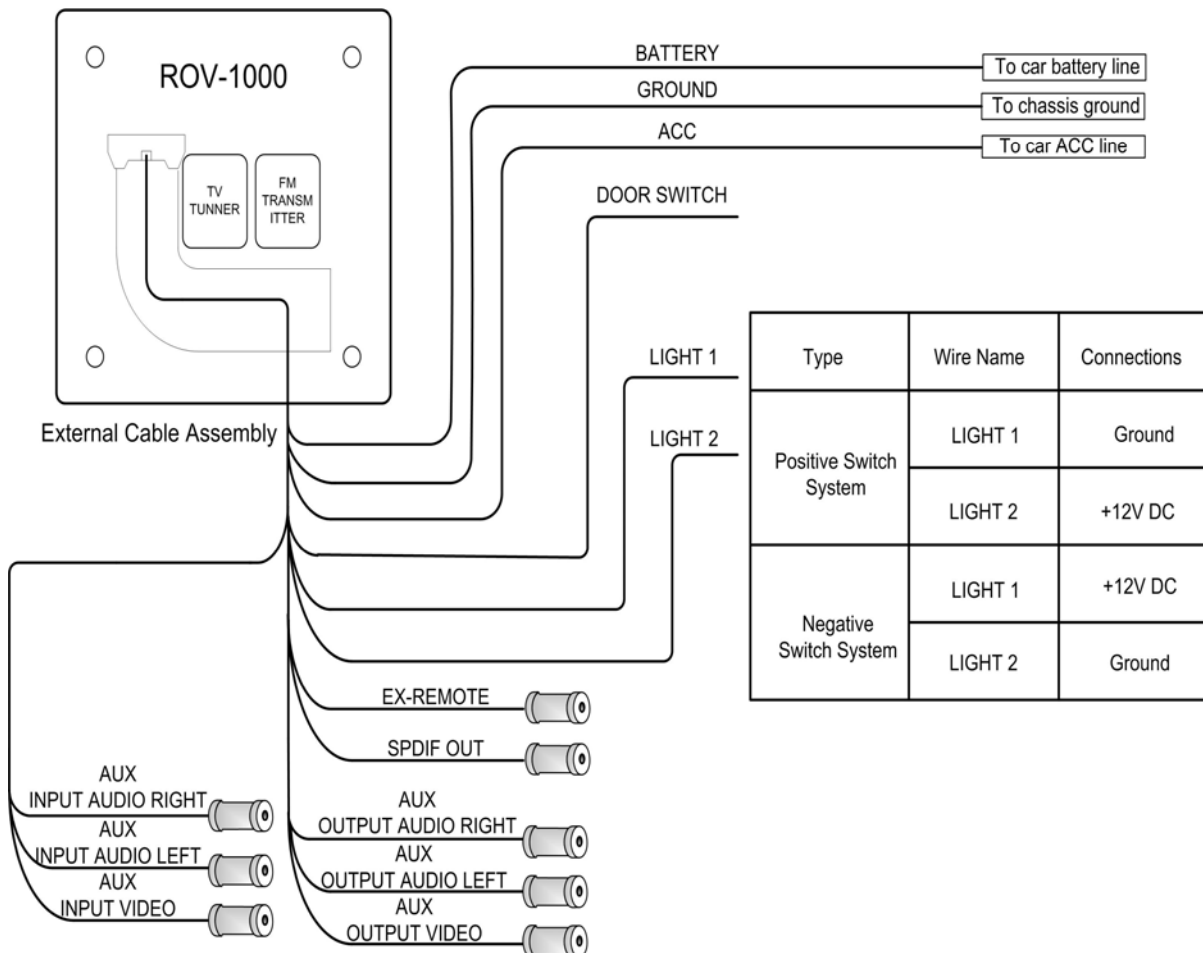


Figure 2



ROV-1000 External connector description

		Pin No.	Description
11	1	1	AUX INPUT VIDEO
12	2	2	GROUND
13	3	3	AUX INPUT AUDIO LEFT
14	4	4	AUX INPUT AUDIO RIGHT
	15	5	GROUND
	16	6	GROUND
	17	7	SPDIF OUTPUT
	18	8	LIGHT2
	19	9	LIGHT1
	20	10	DOOR SWITCH
		11	AUX OUTPUT VIDEO
		12	GROUND
		13	AUX OUTPUT AUDIO LEFT
		14	AUX OUTPUT AUDIO RIGHT
		15	GROUND
		16	EX - REMOTE
		17	5V
		18	ACC
		19	POWER GROUND
		20	BATTERY

- ✓ Insert the 20-pin receptacle connector into the connector on the back of the system
- ✓ Route A/V lead through vehicle, avoiding sharp edges and rub points, to location of A/V input/output box



2. **Connect the supplied power cable to the vehicle electrical system, tapping into an accessory hot line, constant battery line and ground**
3. **Verify that all system functions operate properly before final mounting. Refer to the ROV-1000 operation manual for detailed operating information**



Warning: Failure to properly follow these instructions could result in damage to the vehicle, it's electronic system, other property, or personnel injury and/or death

5. Connecting the dome lights

The dome lights on ROV-1000 require three connections to the vehicle wiring. First, determine which of the two common types of dome light circuits your vehicle has: positive or negative switched. Positive switched systems turn the interior lights on by supplying voltage to them. Negative switched systems illuminate the bulbs by applying ground. The wires at the dome light will help you determine which system you have.

1. **On a positive switched system, with all vehicle doors closed and lights out, both wires at the dome light will rest at ground. When the light is turned on, one of these wires will switch to +12V DC (the vehicle's switching wire).**
2. **On a negative switched system, with all vehicle doors closed and lights out, both wires at the dome light will rest at +12V DC. When the light is turned on, one of these wires will switch to ground (the vehicle's switching wire).**

Note: Some vehicles incorporate transistorized control of the dome light circuit and may not support the additional current draw of the video monitor lights. In these cases, it may be necessary to connect the purple/brown (lamp auto) wire to the door pin switch wire.



Dome light connections

Type	Wire Name	Connections
Positive Switch System	Light 1	Ground
	Light 2	+12V DC
Negative Switch System	Light 1	+12V DC
	Light 2	Ground

Table 1.



Warning: Failure to properly follow these instructions could result in damage to the vehicle, it's electronic system, other property, or personnel injury and/or death

6. System Test

When installation is complete, test the following:

- ✓ Power connection
- ✓ Dome light function
- ✓ IR remote control function
- ✓ A/V input/output functions
- ✓ IR headphone function(optional)
- ✓ Wireless FM transmitter functions(optional)
- ✓ TV Tuner functions(optional)

7 Trouble shooting

If the ROV-1000 does not appear to be functioning properly, Please follow these troubleshooting guidelines

Symptom	Remedy
No power at Video Monitor	1. Verify +12VDC Power at 20pin Power/Signal harness behind the video monitor.



<p>Power but no video or sound</p>	<p>2. Verify ground connection by conducting a continuity test from known good ground to ground wire at 20pin Power/Signal harness.</p> <p>1. Verify that the correct A/V source is selected (TV, DVD, AUX1, AUX2)</p> <p>2. Verify connections at both ends of the source component harness.</p>
<p>Picture, but no sound</p>	<p>1. Push and hold the volume up button until sound is heard over headphones. If problem is limited to the dash radio, verify radio is tuned to the correct channel. Otherwise, verify all connections per the wiring diagram on page 11(Table 1.).</p>
<p>Static on TV Stations (Tuner Version only)</p>	<p>1. Press Auto program button. Then press CH up or CH down. Verify antenna mounting and connections to the tuner.</p> <p>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.</p>
<p>Remote control doesn't work)</p>	<p>1. Check the strength of the batteries. If they are weak, replace both batteries with new one.</p>

Refer to the ROV-1000 operation manual for additional troubleshooting information.