

Rear View Camera

BC-100

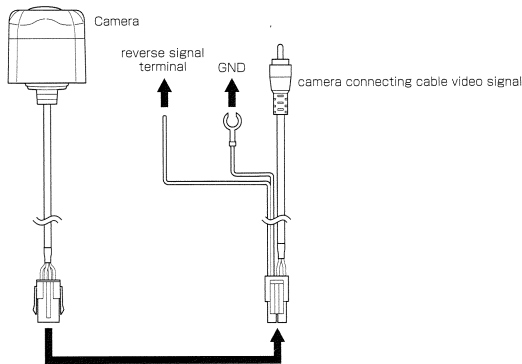
Installation Manual



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Cable Connection Chart

Connection chart



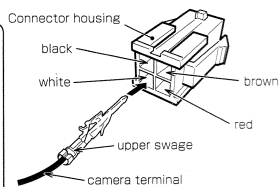
Connector housing

Insert a camera terminal all the way seated

Caution

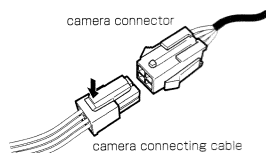
- *Insert cables correctly.
- *Don't touch the terminals with wet hand. This may cause contact failure and no image on screen.
- *Be sure to fix the lead wire after terminal insertion.

how to insert terminal



Dismount the connector

Insert the connector all the way seated. In case of dismount, pull the connector with pushing the arrow part.



Marking Explanation

This Installation Manual describes important instructions with various marking for the safe and correct use of this rear-view camera and for the prevention of an injury to yourself or others and damage to property. Each marking indicates the following meaning:

- WARNING** (Warning symbol) Indicates an instruction that draws attention to the risk of serious injury or death arising from wrong usage by neglecting the instruction.
- CAUTION** (Caution symbol) Indicates an instruction that draws attention to the risk of personal injury and material damage resulting from improper usage by neglecting the instruction.
- (Warning and Caution symbols) Indicates an action that should be taken carefully.
- (No smoking, No open flame, No hand symbol) Indicates an action that is prohibited.
- (Exclamation mark symbol) Indicates an action that should be taken without fail.

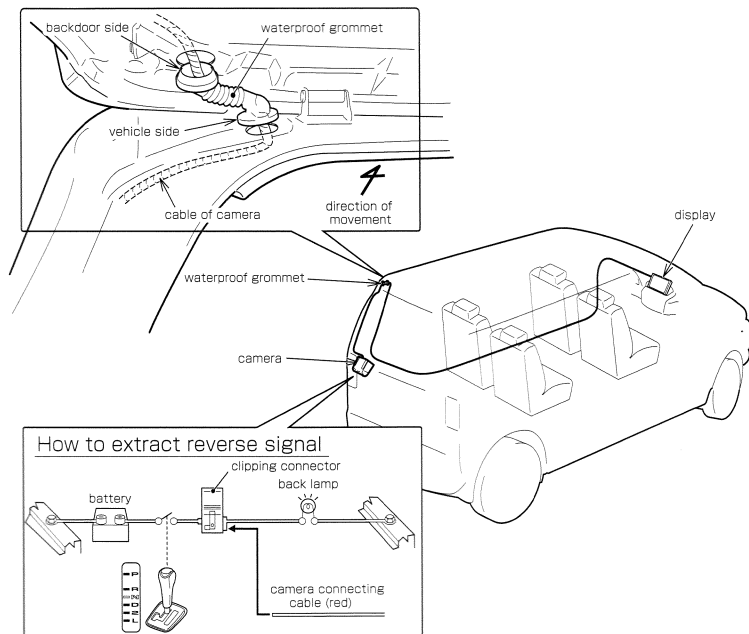
General Warning

- Do not drive a vehicle looking at only camera image.** Otherwise, there is a risk of an accident with a person or an obstacle. Road traffic act prohibits drivers looking at an image when driving.
- Do not perform a complicated operation when driving.** Otherwise, there is a risk of an accident. Be sure to stop a car in a safe place when performing.
- Do not use the camera under breakdown including no image or no sound.** Otherwise, there are risks of an accident, fire or electric shock.
- This camera unit is designed for vehicles with 12VDC negative earth.** Do not use it for vehicles with 24VDC including large trucks and vehicles equipped diesel engine for cold regions. Otherwise, there are risks of an incident, fire or electric shock.
- Do not put foreign object into the camera unit.** Otherwise, there are risks of smoke emission, fire, electric shock and breakdown.
- Do not drive a vehicle while looking only at camera image. Camera is an only assist device for checking surroundings.** Otherwise, there is a risk of an accident with a person or an object. Camera image does not always display all surroundings.
- Perform a safety check with visual contact as well even when using Camera Unit.** Otherwise, there is a risk of an accident with a person or an obstacle out of view of the camera.
- Drive at low speed when getting into reverse gear.** Otherwise, there is a risk of an accident with a person or an obstacle because a sense of distance differs between camera image and visual contact.
- In case of mixed foreign object, splashed water, smoke emission or odd smell, stop the use immediately and consult the shop where the camera unit was purchased.** Continuous use under such situations may cause an accident, fire or electric shock.
- Do not disassemble or modify the camera.** Otherwise, breakdown, fire or electric shock may occur.

Actual Cable Connection

1, Cable connection

Example



Caution

- *Check no jamming, broken, or stretched cable by opening and closing the back door repeatedly.
- *Check that there is no water leak from the portion where the cord is led into the cabin.
- *If water leak is a concern, use waterproof tape, or a sealing material to correct the problem.
- *Wire the cable of the Camera Body and the Video Connection Cord away from a radio antenna and antenna cable as far as possible to prevent noise on the camera image.

Warning against mounting and wiring.

Warning

- Do not mount this camera where it prevents field of front vision, where it obstructs driver performance including starting, shift lever and brake, and where it may cause risk to follow passengers. Otherwise, there are risks of accident and injury.
 - Do not mount or wire this camera where it prevents air-bag system. Otherwise, there is a risk of malfunction of air-bag in an accident.
 - Do not get power from other devices by cutting cover of power code. Otherwise, there are risks of fire or electric shock caused by overcurrent of power code.
 - Do not use bolts and nuts of safety parts of starting, brake system and tank when mounting the camera or earthing with bolts or nuts of car body. Otherwise, there are risks of loss of control, fire or accidents.
- Do not pierce a hole in the pipes or the fuel tank. Otherwise, there is a risk of fire.
- Be sure to detach negative(-) terminal before mounting. Otherwise, there are risks of electric shock or injury caused by short-circuit.
 - Be sure to bind up codes to avoid preventing driving performance. Otherwise, there is a risk of an accident caused by entwining with starting, shift lever or brake.
 - Be sure to check the normal function of electric components including brake, lights, horns and winker. Otherwise, there are risk to fire, electric shock or an accident.

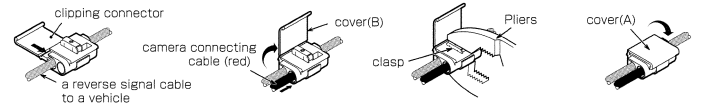
Cautions

- Do not apply an excessive force to the camera and high-pressure car washing. Otherwise, detachment of the camera and angle displacement may occur and cause failure or an accident.
- Avoid wiring with jamming cables in moving parts such as car body, screws and seat rail. Otherwise, there are risks of an accident, electric shock and fire caused by cable breaking or short-circuit.
- Avoid wiring in high temperature area. Otherwise, there are risks of fire or electric shock caused by breaking coated cables and short-circuit after cables touching the hot area of the car body.
- Be sure to avoid applying strong shock including drop the camera. Otherwise, camera breakdown or personal injury may occur. Fasten securely.
- Be sure to use as instructed by installation manual of accessories. Otherwise, there are risks of an accident, breakdown and fire caused by parts damages of camera insides or unsecure fastening arising from using undesignated parts.
- Be sure to wire as instructed by installation manual. Otherwise, there are risks of fire or an accident.
- Be sure to check operating instructions with car manufacture when mounting vehicle with air-bag. Otherwise, air-bag malfunction may occur.
- Be sure to ask mechanics at purchase store to mount, wire or change location of the camera for safety. These works need expertise. In case of wrong wiring, serious trouble may occur in vehicle.
- Be sure to read the manual of other devices and use properly when connecting them.

How to use

How to use clipping connector.

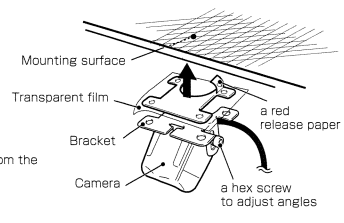
Please follow the preceding 1 to 4 as below.



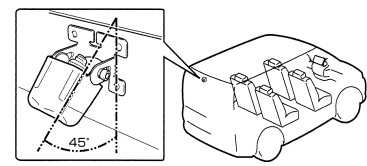
1. Identify the location to pull out signal from a signal cable connecting a vehicle and put the cable through the clipping connector.
2. Fold cover(B) and push it until snapping sound is heard. Insert the end of a cable connecting the camera into the clipping connector.
3. Interleave a clasp of the upper side with pliers and fix the signal cable to a vehicle and a cable to a camera.
4. Fold cover(A) and push it until snapping sound is heard.

Camera Mounting

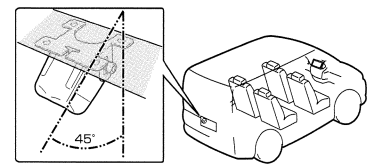
1. Bend a bracket to fit the curved surface.
2. Detach a double-sided film and a red release paper from a camera bracket.
3. Mount the camera bracket to a mounting surface.
 - *Recommended location
 - The center of a vehicle with a margin of plus or minus 40cm from the center of a camera lens, and within 50 to 200cm from ground. (App. 45 degrees vertically and parallel to ground horizontally or back side of a vehicle.)



※Mounting to back door.



※Mounting to rear garnish.



In case of Failure

Phenomenon	Cause	Corrective Action
Camera image is not displayed.	Ignition key is not turned on.	Turn on the ignition key.
	Reverse signal is not turned on.	Put the shift lever into reverse.
	Wrong wiring, Cable disconnection.	Check the cable connection.
	Cable is not connected.	Connect the cable properly.
A bright line appears on the display.	This is not a failure but a phenomenon caused by the incidence of sunlight or strong light.	Set the display to prevent strong light.
Camera image flickers.	This is not a failure because camera image may flicker at a place near a lighting fixture including fluorescent lamps.	—
Camera image is shaken.	Angle adjustment screws are loosened. Bracket is not securely attached.	Mount the Bracket securely, and tighten the angle adjustment screws.
Camera image is not clear.	Lens is dirty.	Wipe the lens lightly with a soft wet cloth.
Noise is mixed in the radio sound when camera image is displayed.	Noise is mixed in the radio signal from the cable of Camera Unit.	Change the wiring route.

Specification

Supply voltage	DC6V~16V
Grounding system	Negative earth system
Current consumption	Approximately 35mA or lower (12V)
Output image	Mirror image (conforming to NTSC color signals)
Output drive capacity	1.0Vp-p (75Ω terminal)
Image element	1/3.6 type color CMOS image
Effective pixels	640(H)*480(V)
Lens part	Focal distance : approximately 1.1mm, Brightness : F=2.2
Viewing angle	Horizontal : 142 degrees (app.), Vertical : 118 degrees (app.)
Operating temperature range	Camera : -40 ~ +85 degrees
Storage temperature range	Camera : -40 ~ +105 degrees
Dimensions(W*H*D)	Camera : 23.7 * 23.7 * 24.8mm (without bracket)
Weight	Camera : approximately 85g (with cable)