

## INSTRUCTION MANUAL

※ Design and specifications could be changed without notices.



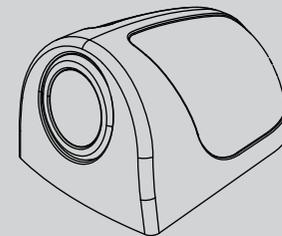
ver. 1.0 PRINTED IN KOREA

*Perimeter View™*

# **20-CS-110**

SIDE-VIEW FOR VEHICLE

Thank you for purchasing this product.  
For proper usages and application,  
Please read this instruction manual thoroughly.





## CONTENTS

Safety Rules .....	4
1. Features .....	5
2. Box Contents .....	5
3. Installation .....	6
4. Connection .....	8
5. Cleaning & General maintenance .....	9
6. Specifications .....	9

## SAFTY RULES

Please read the "Safety Rules" carefully before using this product. Following the safety rules prevents users from damages related with the misuse of the product. It is very important to follow these safety rules. We state "Caution" and "Warning" to clarify any potential risk for a damage associated with the misuse of the product.

**Warning**  May cause bodily harm or even death if the user ignores these warnings in the safety rules.

**Caution**  May cause a damage or shorten the life time of the product if the user ignores these cautions in the safety rules.

### WARNING

-  When the power cable cord touches a metal case, cover it with a insulation tape.  
--- Short circuit or disconnection of wire may cause a fire or accident.
-  Do not use bolts or nuts from a parts for vehicle.  
--- Using bolt or nuts from steering column or break may cause an accident.
-  Let professional engineers or the sale store install the camera.  
--- It require the experience and skills from professional engineers for proper installation and wiring.
-  After installing the camera, check it break lamp, head lamp and wipe works properly.
-  Install this camera to the vehicle with DC 12V.

### CAUTION

-  Do not disassemble the device.  
--- It may cause a fire or malfunction of device.
-  Do not install the camera projected out from the vehicle.  
--- It may harm the pedestrians.
-  Do not let the extension cable pass through the seat rail. properly wire the cables.  
--- It may cause a fire or and accident.
-  Do not install the camera bracket on the surface of glass.  
--- Use the screws to install the camera bracket.

## **1** FEATURES

(LENS)

- 1/4" IT COLOR CCD image sensor
- Zn die-casting body
- Compact size
- Waterproof (IP-67)

(HOUSING)

- PC-BODY application
- Simple assembling with hook.

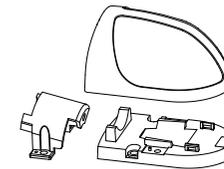
## **2** BOX CONTENTS



Camera



Bottom Rubber



Camera Bracket Set



Instruction Manual



Extension Cable  
15ft (4.6m)



Screws set

### 3 INSTALLATION

※ Based on the condition and place, the installation procedures could be varied.



(1) Verify the position of 'TOP' which should be upper side and fix it to the lens bracket with screws.



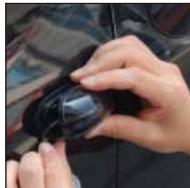
(2) Then install it to the bottom bracket.



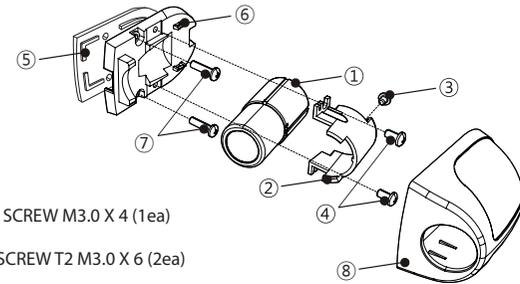
(3) Select and clean the position for the camera installation.



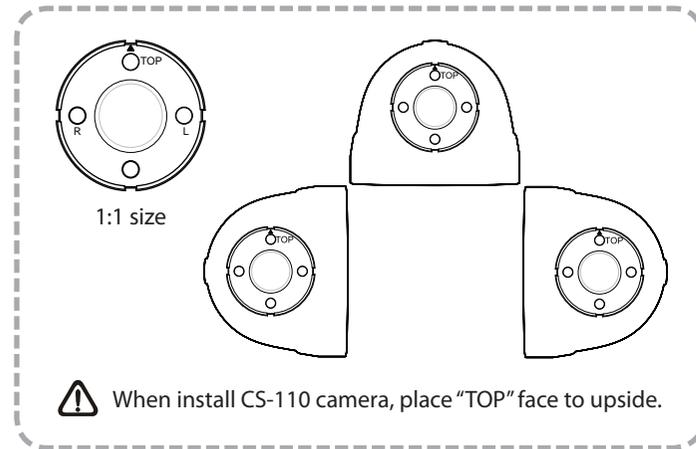
(4) Fix the pre-installed camera using the rubber packing and screws.



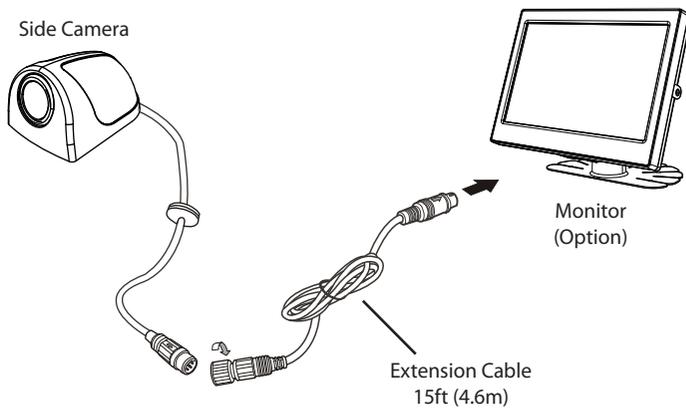
(5) Then cover it with the camera housing like the picture.



-  MACHINE SCREW M3.0 X 4 (1ea)
-  TAPPING SCREW T2 M3.0 X 6 (2ea)
-  TAPPING SCREW T1 M3.0 X 12 (2ea)



## 4 CONNECTION



Before making the connection, disconnect the ground terminal of the car battery to avoid short circuiting.

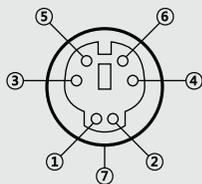


Before inserting plug, should check pin specification and the plug should insert to jack or connector firmly. If forced insert wrong direction, it may cause malfunction.



When connect extension cable, turn it right direction as described arrow.

### CS-110 CAMERA CONNECTOR



1. POWER IN (DC +12V)
2. N.C
3. N.C
4. VIDEO OUT
5. N.C
6. N.C
7. GND

## 5 CLEANING & GENERAL MAINTENANCE

※ If your vehicle has been parked in direct sun light resulting in a considerable rise in temperature inside the vehicle, allow the unit to cool off before operating.

### CLEANING

Unplug or power off mode before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

### OBJECT AND LIQUID ENTRY

Never push objects of any kind into this monitor equipment through holes as they may touch dangerous voltage points or short-out parts that could result in a fire of electric shock. Never spill liquid of any kind on the product.

### SERVICING

Do not attempt to service this system by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

## 6 SPECIFICATION

Image device (NTSC/PAL)	1/4" IT COLOR CCD Image Sensor
View of angle (H/V/D)	71/47/74 deg
Minimum illumination	1Lux
Input Voltage	DC 5V~15V/100mA max @ 12V
Operating temperature	-4°F to 122°F / -20°C to 50°C
Camera Weight	0.18lb (79.5g)
Dimension	2.44(W) x 1.18(H) x 1.57(D) inch
	62(W) x 30(H) x 40(D) mm
Accessories	Bottom Rubber ----- 1
	Screws set ----- 1
	Extension Cable ----- 1



**MEMO**

A large, empty rectangular box with rounded corners and a light gray border, intended for writing a memo.



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