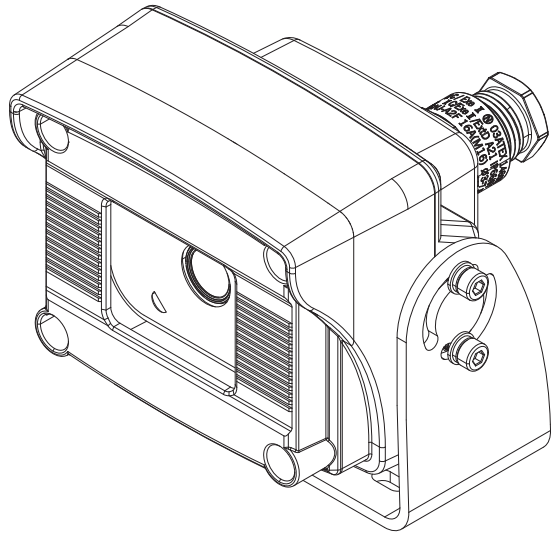


# ECC-MEP10

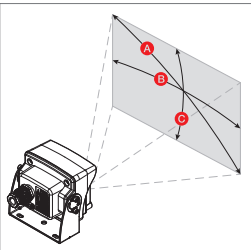


## Owner`s Manual

### ■ SPECIFICATION

MODEL	ECC-MEP10			
Image Type	1.23 Mega Pixel CMOS Sensor (NTSC / PAL)			
Image Size	1/3.2 Inch			
Angle of View		Diagonal	Horizontal	Vertical
	CVBS	130°(degree)	102°(degree)	82°(degree)
	A-HD	126°(degree)	108°(degree)	61°(degree)
Synchronization	Internal			
Horizontal Resolution	CVBS - More than 700TV lines (NTSC / PAL)			
	A-HD - More than 1,000TV lines (NTSC / PAL)			
Minimum Illumination	0 Lux w/ IR LED			
Signal to Noise Ratio	Better than 50dB (at AGC off)			
Vibration	10G			
IP Rating	IP69K			
Housing	Window : Tempered Glass (10T)			
	Body : Aluminum			
Weight	Approx. 800g (Camera Only)			
Dimension	98.0 (W) × 86.0 (H)× 113 (D)mm			









### ■ LENS SPECIFICATION














1/3.2 Inch 1.23 Mega pixel CMOS Sensor  
Optical Axis Corrected

Angle of View		CVBS	A-HD
<b>A</b>	Diagonal Angle of View	130°	126°
<b>B</b>	Horizontal Angle of View	102°	108°
<b>C</b>	Vertical Angle of View	82°	61°

### ⚠ CAUTION BEFORE USAGE

-  Please use the product after reading the manual carefully for safe usage. Please install and use the product after fully aware of the manual and precaution.
-  Ask experienced technician for product installation. Installation should be done by the technician due to professional skills and experience is required.
-  Do not install, open or modify the product randomly. It can cause product malfunction, electric shock, fire and also waterproof problem for waterproof product. Contact the service center and ask for A/S, if repairs are necessary.
-  Use regulated voltage. Protection circuit is built inside but over voltage usage can cause damage to the product. Manufacturer will not take responsibility for the product malfunction caused by over voltage.
-  Do not drop or give external shock to the product. The product screen or exterior can be damaged and cause malfunction of the internal parts. In this case normal customer support and A/S can not be received.
-  Connect the main power after installation. It can cause product malfunction, fire and electric shock.
-  Use authorized accessory and components. Using unauthorized accessory and components can cause product malfunction and the manufacturer will not take responsibility for the malfunction.
-  The product is designed for normal condition usage. Please fully consult and discuss with your dealer or manufacturer if you need to use the product in special condition. Otherwise, it can product malfunction in abnormal condition usage.

### ⚠ SAFETY & CAUTION DURING THE USAGE

-  Do not cut or damage the cable randomly. It can cause product malfunction or waterproof function detect. Manufacturer will not take responsibility for the malfunction.
  -  Tighten the connectors when connecting the extension cable. It can cause connection problem or waterproof function defect of the product.
  -  Check the fixed condition of the bracket and product before driving. It can cause damage while driving in unstable condition by physical phenomenons. Manufacturer will not take responsibility for user's negligence.
  -  Do not use the product immediately after leaving alone for a long period in summer or winter. It can cause serious damage to the product when using in inappropriate temperature.
  -  Stop using the product immediately if burning smell, smoke or severe overheating occurs while usage and visit the A/S center.
  -  Make sure the connect power cable and camera cable in right direction. Wrong wire connection can cause damage to the product.
  -  Do not wrap the product with any fabric while operating. Due to internal temperature rising, it can cause product malfunction or fire.
  -  Avoid severe electrostatic condition. It can cause product malfunction.
  -  Do not pile up heavy stuff on the product. It can cause product problems or damage.
  -  If any debris is found inside of the product, disconnect the power cable and visit the A/S center. It can cause electric shock or malfunction when used continuously.
  -  Do not clean the product with chemical product. (Alcohol, Benzene, Acetone and etc.) It can cause damage of the product surface or product malfunction.
- \* USE REGULATED VOLTAGE FOR EACH CAMERA, (REFER PRODUCT SPECIFICATION)**  
**\* DO NOT CUT THE CABLE RANDOMLY.**  
**\* OUR COMPANY WILL NOT TAKE RESPONSIBILITY IN CASE OF PRODUCT DAMAGE DUE TO CONSUMER'S NEGLIGENCE.**

#### ■ Condition of Ex Camera Use

The optional supply cable extension connection shall only be installed in a non-Zoned area.  
\* non-Zoned area means Safe, non-hazardous area

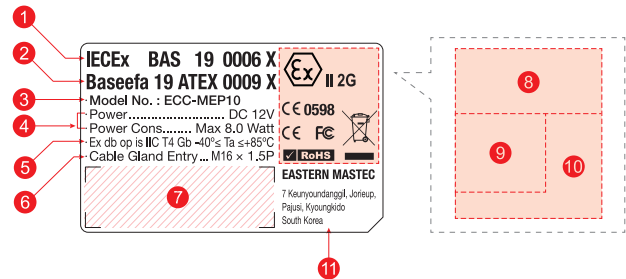
The front cover must not be opened for maintenance or installation, and must be returned to the manufacturer if any repair work is required.

The Flame path joints shall not be repaired.

The bolts for the rear cover must only be replaced with equivalent bolts with a yield stress of 700 N/m.

### ■ Ex EQUIPMENT

Power Input DC 12V



Power Input DC 10V ~ 32V (Optional)



- EC/EU Type Examination Certificate Number
- IEC Ex Certificate of Conformity Number
- Ex Camera Model Name
- Power Supply Information
- Ex Marking for Explosive Gas Atmospheres and Ambient Temperature Range
- Cable Gland Entry Specification
- Product Serial Number
- Explosion protection Mark (ATEX Marking)
- CE Mark (ATEX Marking)
- Other Certification Mark
- Name And Address Manufacturer

### ■ Ex MARKING

Ex db op is IIC T4 Gb -40°≤ Ta ≤+85°C

- Explosion Protect Equipment
- Protection Concept (Flameproof Enclosure) : EPL b (IEC/EN 60079-1)
- Protection Concept (Optical radiation) : Inherently safe (IEC/EN 60079-28)
- Gas Group : Hydrogen, Acetylene
- Temperature Classification : 100°C < Surface Temperature (t) ≤ 135°C
- Equipment Protection Level : b
- Ambient Temperature Range

THIS SYMBOL MEANS DO NOT DISPOSE OF AS MUNICIPAL WASTE.

RE-USE OR RECYCLE WHEREVER POSSIBLE. ELECTRICAL / ELECTRONICAL COMPONENTS MAY CONTAIN SUBSTANCES WHICH ARE HARMFUL TO THE ENVIRONMENT.

FOR ENVIRONMENTALLY SOUND METHODS OF DISPOSAL, PLEASE CONTACT YOUR LOCAL GOVERNMENT AUTHORITY.

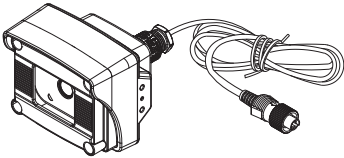
- \* Design and specifications are subject to change without notice.
- \* Patent registered.
- \* The purchaser should make the manufacturer aware of any External effects or Aggressive substances that the equipment may be exposed to.

“ Perfect Quality, On-Time Delivery & Speedy A/S ”

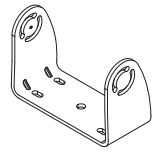
Part No.	6MNECMEP10-03
Rev No.	04
Rev Date.	Mar. 06. 2024

printed in Korea


COMPOSITION



CAMERA



MOUNTING BRACKET



INSTRUCTION MANUAL

SCREW KITS

T/H M5 × 12L STAINLESS (w/ SPRING FLAT WASHER) 5EA

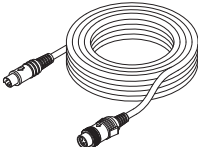
HEX M5 × H5 (NYLON INSERT) 5EA

P/H T5 × 16L STAINLESS 5EA

M4 × 10L STAINLESS (w/ SPRING FLAT WASHER) 5EA

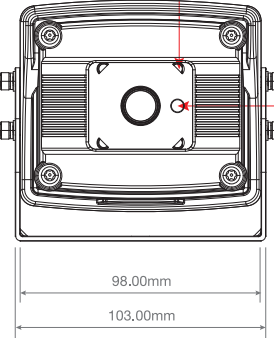
L-Wrench

Optional

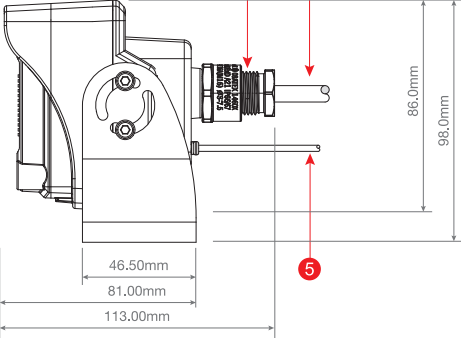


20M EXTENSION CABLE

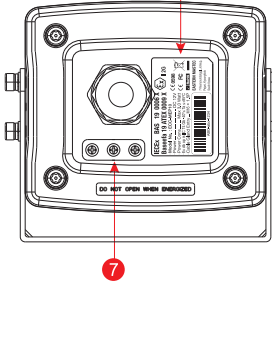
FEATURES



1 IR LEDs (4EA)  
2 DAY and NIGHT Sensor



3 Cable Gland  
4 Camera Cable ( Could be replaced with 'ADR' certificated product )  
5 External Ground Cable

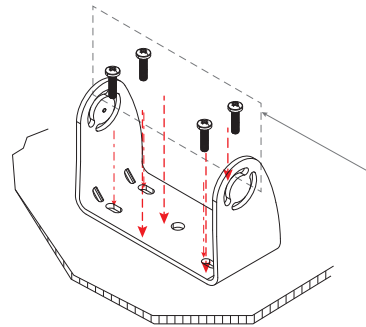


6 Ex EQUIPMENT  
7 Copper Plate (External Ground)

INSTALLATION

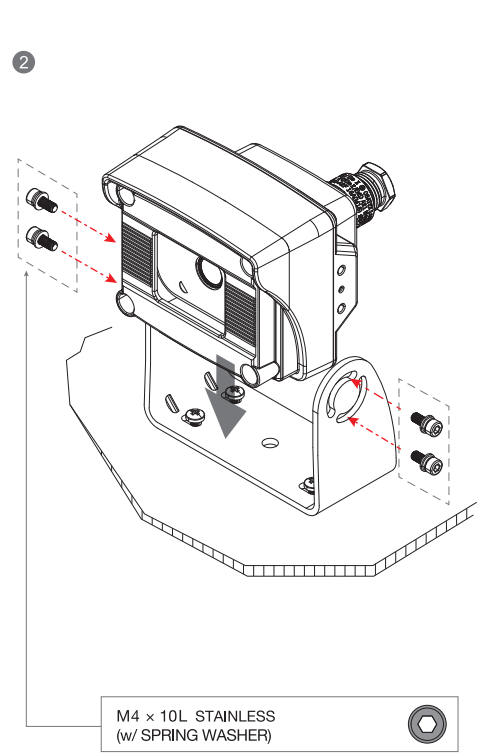
Install camera firmly the adequate position of vehicle after checking camera's field of view. Cameras can be installed at suitable position of vehicle's rear side according to user's convenience. Ask your dealer or experienced technician how to install camera and monitor due to different type of vehicle.

1

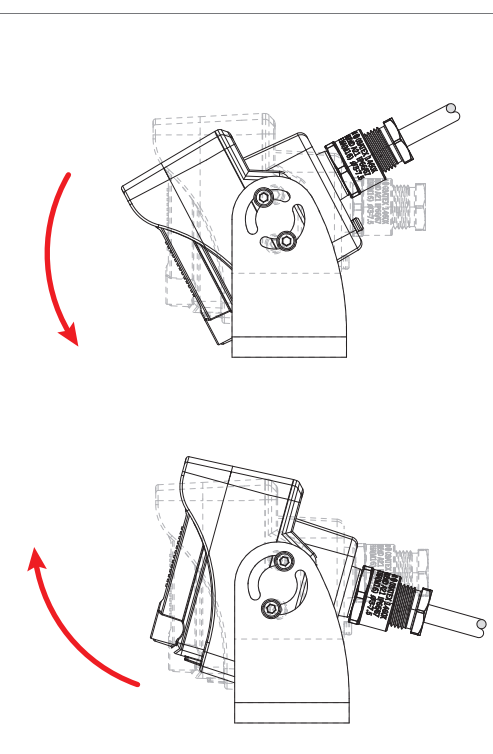


T/H M5 × 12L (w/ WASHER) OR P/H T5 × 16L

2



M4 × 10L STAINLESS (w/ SPRING WASHER)



• Adjust camera angle to avoid lens field of view & sun light.  
• Fasten the screw firmly to avoid product's damage or operation.

CONNECT WIRING

Connect CAMERA & MONITOR after checking specification of monitor and extension cable.

POWER CONNECTION should be chosen by user according to power supply conditions. Connect CAMERA BACK CABLE with EXTENSION CABLE and then connect EXTENSION CABLE with MONITOR.

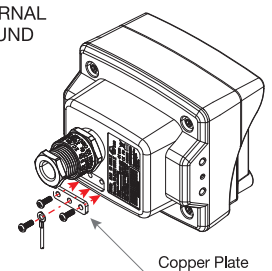
**⚠ CABLES MUST BE INSTALLED IN SAFE AREA. CABLES ARE PERMANENTLY ENGAGED AND SHIPPED, DO NOT DISCONNECT.**

Use acid free vaseline or grease inside of connector before fixation for a guaranteed long lifetime. Connect camera back cable with extension cable. Firmly after checking male & female connector. Otherwise, it causes products problem.

\* Cables could be replaced with 'ADR' certificated product

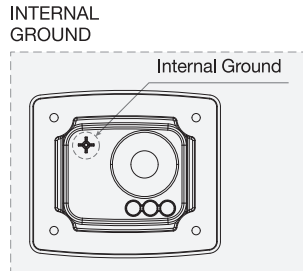
GROUND

EXTERNAL GROUND

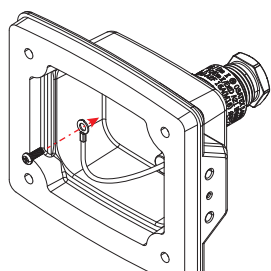


Copper Plate

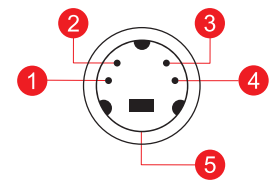
INTERNAL GROUND



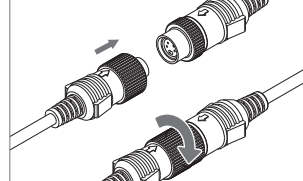
Internal Ground



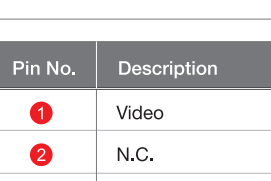
CAMERA INPUT CONNECTOR PIN DESCRIPTION



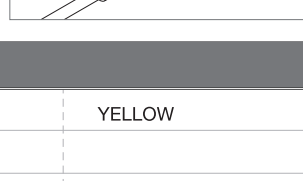
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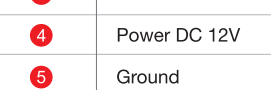
2




3



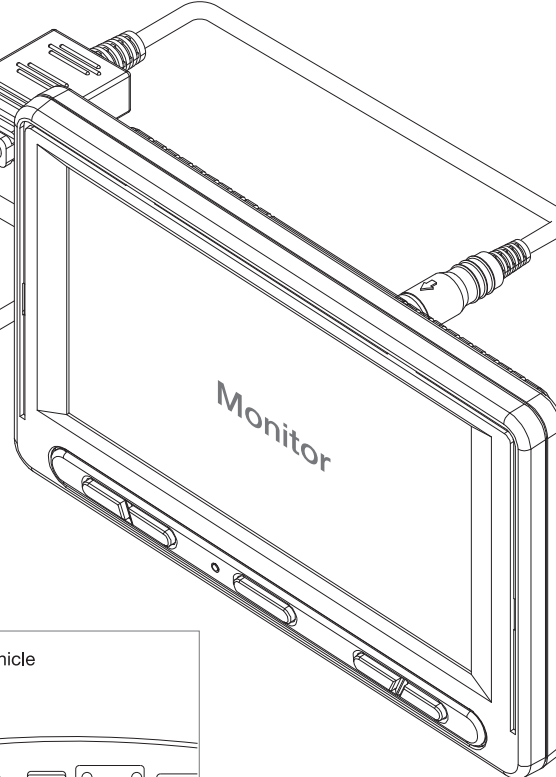
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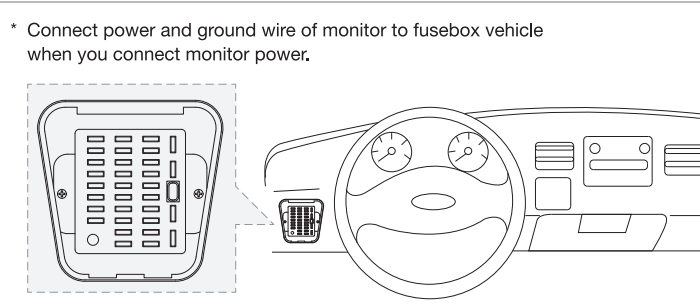
5



20M Extension Cable (Optional)



Monitor



\* Connect power and ground wire of monitor to fusebox vehicle when you connect monitor power.