

# User Manual

# IVIEW+ HDS-K02

Advanced pedestrian detection camera system based on AI technology

# English Ver.0.0.4

 $\diamond$  This manual contains installation guides.



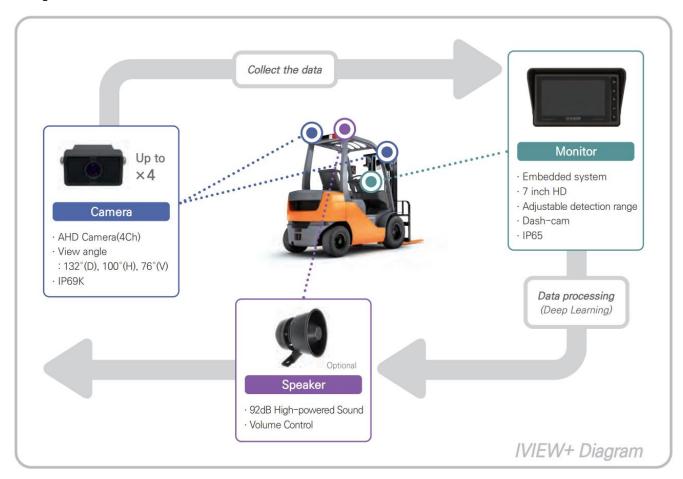
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# **Summary**

IVIEW+ is a safety assistance system that detects pedestrians and provides alerts to drivers at any industrial site. IVIEW+ adopts advanced technology of AI (Artificial Intelligence) human subject detection and allows users to detect the subject in real-time.

The driver receives visible and audible alerts that are designed to minimize the number of accidents in the working fields.



<IVIEW+ Diagram>



# **Safety Instructions**

Please read the following instructions carefully before using the product. This information is important for ensuring the safety of the user and for preventing damage to the user's property.

# WARNING!

Failure to follow the instructions may cause serious injury or death.

# **Installation Instructions**

# Do not install the product in direct sunlight or in a location that is damp or dusty.

• This can cause a fire or electric shock.

# Do not install the product near any heat source such as electric heaters.

• This can cause a fire from overheating or electric shock.

# Install the product in a dry place.

• Moisture can cause product damage or electric shock.

# Install the product in a place where there is no electromagnetic interference.

• This can cause product damage or electric shock.

# Have qualified service professionals install or repair the product.

• Otherwise, it can cause a fire, electric shock, or injury.

• If the product is damaged due to a user's unauthorized installation or dismantling of the product, a service fee will be charged for repair.

### Be careful not to spill any liquid such as water, drinks, or chemicals inside the product.

• This can cause fire, electric shock, or product damage.

# **CAUTION!**

Ignoring these instructions may result in minor injuries or damage to the product.

### Do not drop the product or subject it to shock or impact during use.

• This can cause a product failure.

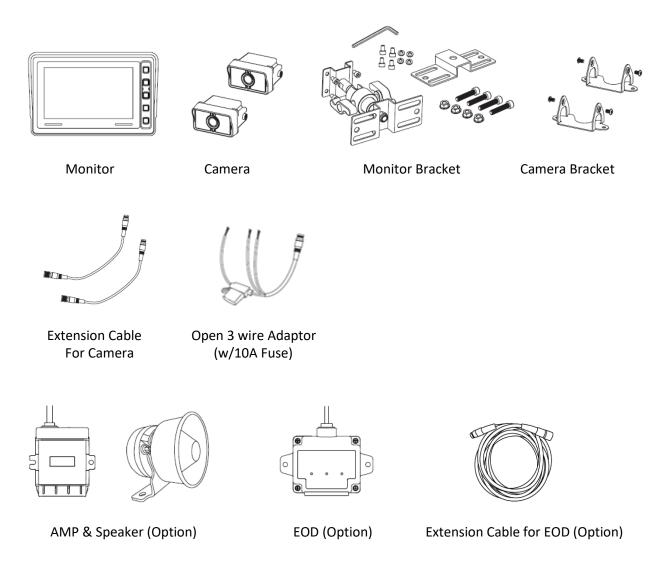
- Do not press the buttons on the product with excessive force or with a sharp tool.
- This can cause a failure. Clean the product with a soft, dry cloth.

# Do not use alcohol, benzene, or water.

• This can cause a product failure.



# Components

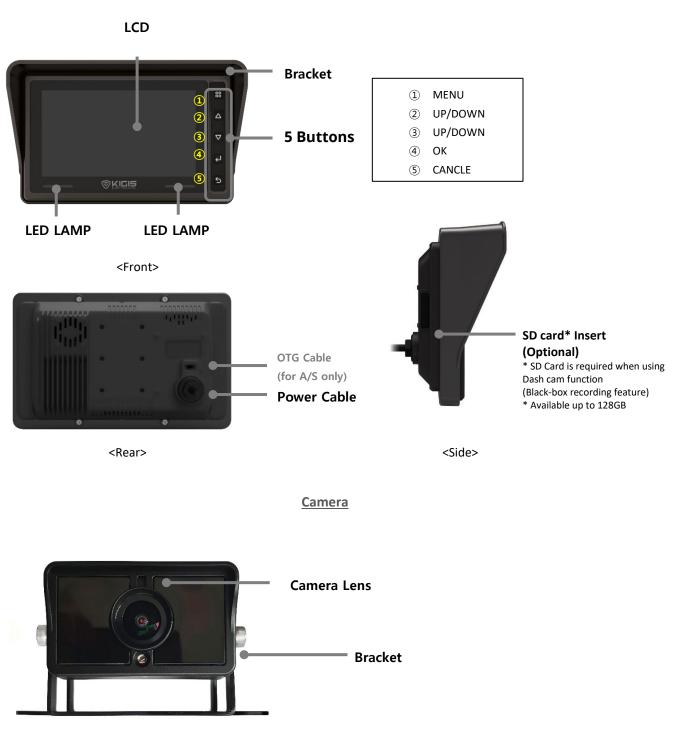


% The appearance of the product may be slightly different from the actual product received.



Parts





<Front>

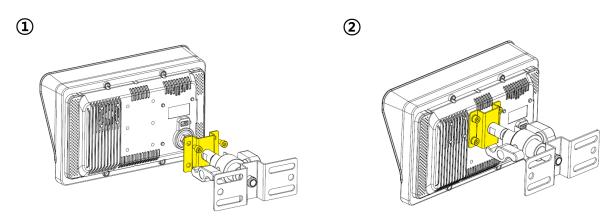


# Installation

# Mounting bracket and product

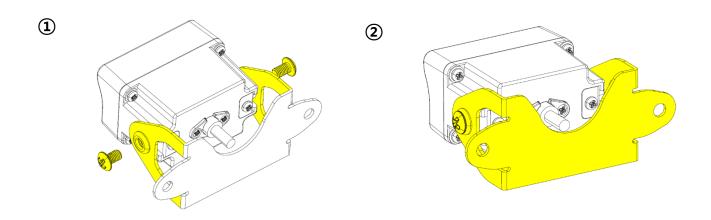
Monitor

With the mounting screws for the bracket, mount the bracket firmly onto the surface of monitor.



<u>Camera</u>

With the mounting screws for the bracket, mount the bracket firmly onto the surface of monitor.





# Connecting the product

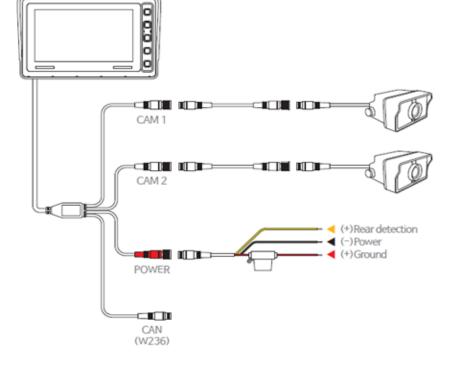


**Caution!** It is highly recommended to install the products after powering off. Turn on the power after connecting all products.



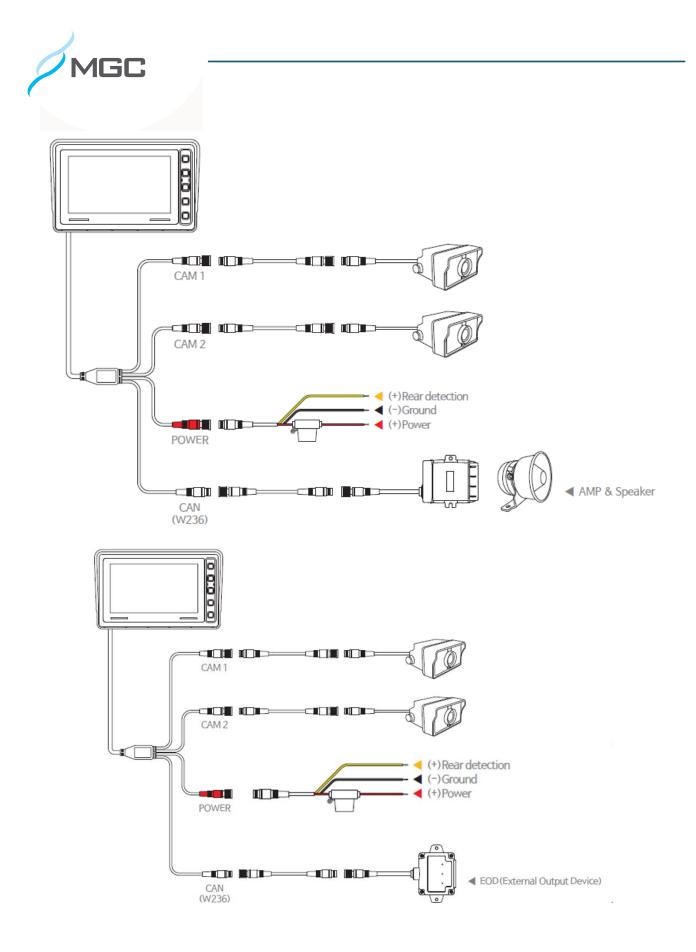
**Caution!** Wind up cable terminals to properly connect them. Disregarding this caution, it may cause a malfunction caused by liquid matters.

- **Basic** connection allows to alert the alarm sound through the monitor system.
- **Option1** provides alarm sounds through the AMP and speaker. It is required to purchase AMP, Speaker and extension cable. (If required))
- **Option2** provides a connection to external devices such as spot lamp and speed limiter through the relay of EOD (External Output Device). It is required to purchase EOD and extension cable. (<u>If required</u>).



### BASIC

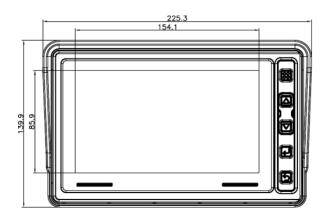
#### **OPTION 1**

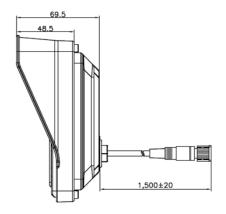


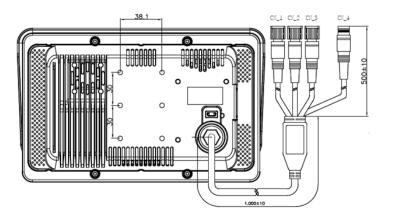


# **Dimension and length**

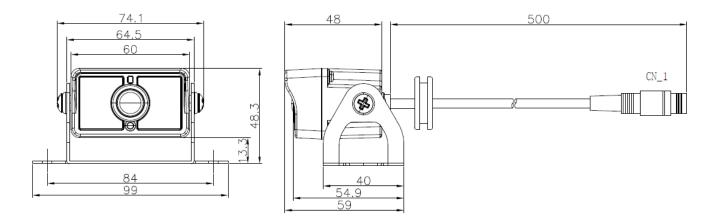








<u>Camera</u>





# How to use

# System Display



[Basic View] Once the power is on, the display shows real-time video through the camera.



[Pedestrian detection] When the pedestrain is detected, the red-box appears around the subject.



# [Alert – LCD & LED]

When the pedestrain is detected within the alram range (based on the setting), both LCD screen and LED lamp flash while making the acoustic alarm sounds.



# System Set-up

#### Setting menu

Select Menu BB button to access setting menu. Control the buttons to set up. If there isn't any action in 30 seconds after accessed to Menu, the system will go back to system display.

### Screen setting

| <mark>00</mark> N | lenu           | PM 15:24        |
|-------------------|----------------|-----------------|
| ::                | Screen setting | Brightness      |
| ⊲»                | Alarm setting  | LED flash speed |
| Ō                 | Camera setting | Language        |
| $\bigcirc$        | Date & Time    |                 |
| f                 | Administration |                 |

Brightness Set up the brightness (level 1 to 5) LED flash speed Set the speed of LED flash (Off, level 1 to 3) Language Choose the language

# Alarm setting

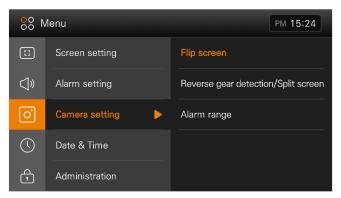
| 00 Menu PM 15:24 |                |                    |  |
|------------------|----------------|--------------------|--|
| ::               | Screen setting | Alarm sound        |  |
| ¢⊅               | Alarm setting  | Alarm volume       |  |
| Ō                | Camera setting | Siren volume       |  |
| ()               | Date & Time    | Reverse gear alarm |  |
| f                | Administration | Reverse gear mode  |  |

#### Alarm sound

Choose the alarm sound from the monitor (3 types) Alarm volume Set up the monitor volume (Off, level 1 to 5) Siren volume Set up the siren volume (Off, level 1 to 4) Reverse gear alarm ON: Always triggers alarm when reverse gear is detected (Siren: Always / Monitor: when the pedestrian is detected) OFF: Triggers alarm only when the pedestrians is detected. Reverse gear mode Always: Triggers alarm only when the pedestrian is detected

Reverse gear: Triggers alarm when reverse gear

# Camera setting



#### Flip screen

is detected

Flip the screen left/right and top/bottom for CAM1 and CAM2.

#### Reverse gear detection/Split screen

Disable (Fixed screen): The screen is always fixed. Enable (Split screen): When reverse gear is detected, the screen splits.

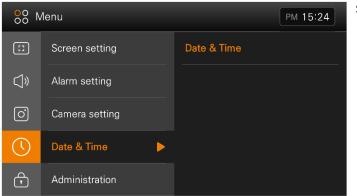
 $\ensuremath{\mathbbmm}$  The reverse gear interlock must be wired.

#### Alarm Range

Choose the alarm range (4 options)



# Data & Time setting



# Set up the Date & Time

# Administration

| 00 N | lenu           | PM 15:24         | Update: Update<br>Password setting                               |
|------|----------------|------------------|--|
| ::   | Screen setting | Update           | password<br><b>Lock:</b> Lock/Unloc                              |
| ⊲»   | Alarm setting  | Password setting | menu<br>Dash cam* (blac  |
| 0    | Camera setting | Lock             | Disable dash cam<br>(*Micro SD card i<br><b>Reset:</b> Reset the |
| U    | Date & Time    | Dash cam         | X Once enabled or  |
| f    | Administration | Reset            | will be turned off a afterwards.                                 |

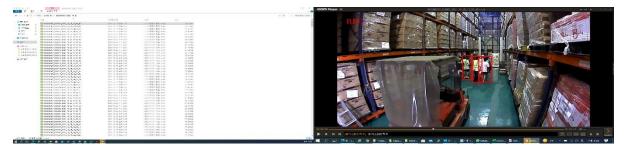
Update: Update the FW by using SD Card Password setting: Reset or change the password

**.ock:** Lock/Unlock the access to administration nenu

Dash cam\* (black-box feature) : Enable & Disable dash cam by On & Off (\*Micro SD card required, up to 128GB) Reset: Reset the all setting parameter

※ Once enabled or disabled, the power of the system will be turned off and start re-booting right afterwards.

#### \*Dash cam (Black-box) example





# **Specification**

| Product  | IVIEW+ Monitor  |              |
|--|---|--------------|
| Screen Size  | 7-inch TFT  |              |
| Resolution   | 1024x600  |              |
| Color Depth  | 16.7M   |              |
| Operating Voltage                                    |   |              |
| Operating Temperature                                |   |              |
| Dimension     225 x 140 x 70 mm (W x D x H)          |   |              |
| Weight   | 1.03kg  |              |
| Buttons  | 5 Buttons with LED Backlight  |              |
| Power consumption Up to 2 channels   Waterproof IP65 |   |              |
|  |   | Camera Input |
| Video Input  | 15.6W(Stand-by), 24W(with alert)  |              |
| Product  | IVIEW+ Camera   |              |
| Image Sensor   | 1/4" Color CMOS Image Sensor  |              |
| View Angle(D)  | 132°(D), 100°(H), 76°(V)  |              |
| Operating Voltage                                    | DC 12V (via Monitor)       -40°C ~ +105°C       60 x 35 x 48 mm (W x D x H) |              |
| Operating Temperature                                |   |              |
| Dimension  |   |              |
| Weight   | 0.98kg  |              |
| Waterproof   | ІРб9К   |              |
| Video Output   | Composite Video (CVBS) 75Ω 1Vp-p  |              |
| Micro SD card  | Above 64Gb Class10 (exFAT format is required),<br>MLC type recommended      |              |

% SD card is not included.



# Trouble shooting

| Troubles  | Possible causes   | Remedy   |
|---|---|--|
| Blacked out LCD screen  | The power must be on to turn on the LCD.  | Check the power cable connection and fuse.   |
| Alarm sound is too<br>low.                                    | Alarm sound is adjustable with 6 levels.  | Menu > Alarm setting<br>Check the level of alarm.<br>※ Check if the level is set as OFF.             |
| The pedestrian is<br>detected, but alert<br>doesn't occur.    | According to the alarm<br>range setting, if the<br>pedestrian is detected<br>from outside of setting<br>area, the alert doesn't<br>occur. | Check Menu > Camera setting > Alarm range  |
| The screen is<br>flipped left and<br>right or upside<br>down. | Flipping screen is changeable according to setting.   | Check Menu > Camera setting > Flip screen  |
| The screen is changed automatically.                          | Check if 'Reverse gear detection' is enabled.   | Check Menu > Camera setting > Reverse gear detection/ Split screen.                                  |
| The screen is<br>blinking and has<br>noises.                  | Caused by foreign<br>objects in the lens or<br>cable connection<br>problem.   | Check if the camera lens has foreign object or water drop.<br>Check the cable is properly connected. |
| Date and Time is off.   | When the battery is discharged, the time will be reset.   | The battery will be discharged after 2 weeks without changing.                                       |