

# INSTRUCTION MANUAL

COLOR CAMERA

MODEL  
**ISD-A10**

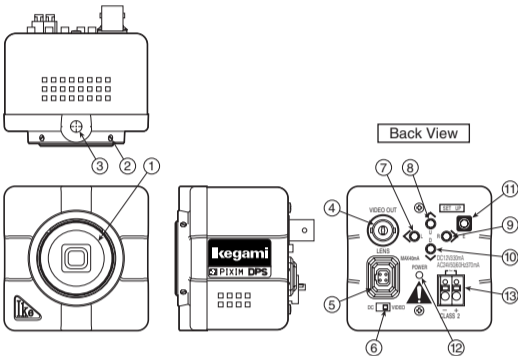
OUTDOOR USE WARNING  
WARNING - TO PREVENT FIRE OR  
ELECTRIC SHOCK, DO NOT  
EXPOSE THIS APPLIANCE TO  
RAIN OR MOISTURE.

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K36089

## 4. Names of par their functions



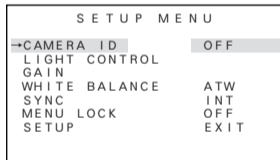
- 1 Lens mount (CS mount)**  
This is used to mount the lens on the camera. Many types of CS mountlens can be attached.
- 2 Focus lock screw (2 locations)**  
Used to mechanically fix the CS mount after adjusting the camera's flange focal distance. To adjust the distance, turn the CS mount and move it to and from until a desired distance is obtained. The two lock screws are positioned 90° to each other on top.
- 3 Holder mounting screw holes**  
These holes are used to fix the camera on the camera holder. They are also applicable to general tripods.  
**Note:**To attach the camera on a tripod or a camera holder, be sure to use mounting screws (1/4" -20UNC) that are shorter than 5.5 mm.
- 4 Video output terminal (VIDEO OUT)**  
Used for the video signal output, this terminal is connected to the video input terminal of a monitor, switcher or the like. (To be terminated with a 75-ohm impedance)

- 1 VIDEO STANDARD** Used to switch between the video signal systems (NTSC/PAL).
- 2 COLOR BAR** Used to turn on and off the color bars.
- 3 CHROMA** Used to adjust the chroma level.
- 4 DETAIL** Used to adjust the details.
- 5 SETUP** Used to select the setup levels (0 IRE and 7.5 IRE).
- 6 RET** Used to go back to the main menu screen.

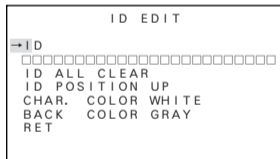
### 6-4. Setup procedures

#### 6-4-1. CAMERA ID

- 1) CAMERA ID ON/OFF setting**  
Keep CAMERA ID highlighted and press the E button. Using the E, L or R button, access the ON/OFF setting. Decide the ON or OFF setting with the L or R button.

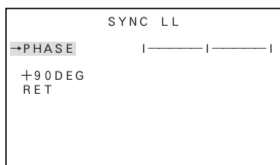


- 2) ID characters setting**  
Keep CAMERA ID highlighted and press the E button. The screen at right shows up.



- 1) ID**  
Press the E button on ID, and the cursor appears. With the L or R button, select a character. Press the E button to save it, and the character box advances to the next one. To delete a character, press the E button to go through the code and place the cursor in the character to delete. Press the L or R button to get the box blank.
- 2) ID ALL CLEAR**  
Highlight this item and press the E button. The ID code is cleared.
- 3) ID POSITION**  
Highlight this item and press the L or R button. In this way, the ID code can be positioned up or down.
- 4) CHAR. COLOR**  
Highlight this item and the press the L or R button to choose from four character colors: white, transparent, gray and magenta.
- 5) BACK COLOR**  
Highlight this item and the press the L or R button to choose from four background colors.
- 6) RET**  
Press the E button to go back to the main menu screen.

- 1) PHASE**  
With the L or R button, move the marker to finely adjust the phase.
- 2) +90DEG**  
With the E button, the phase angle can be adjusted to 0°, 90°, 180° or 270° in the increment of 90°.
- 3) RET**  
Used to go back to the main menu screen.



\* The LL mode is not effective when the camera is on DC power.

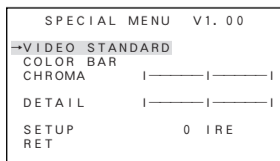
#### 6-4-6. MENU LOCK

The menu lock function protects saved settings against accidental modifications.

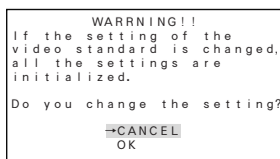
- 1) Locking**  
Get the saved settings locked with the L and R buttons.
- 2) Operation**  
When locked, EXIT alone is effective and all the other actions are inoperative.
- 3) Unlocking**  
Press the U, R, D, L, U, D and E buttons in this order. If a wrong button is pressed halfway, start all over again.

#### 6-4-6. SPECIAL MENU

- 1) Highlight SETUP on the main menu screen and hold down the L and R buttons together. The SPECIAL MENU screen at right shows up.**



- 2) VIDEO STANDARD**  
The video signal systems (NTSC/PAL) are switched here. Select VIDEO STANDARD, press the E button and the warning screen at right shows up.



- 1) CANCEL:** Used to go back to the SPECIAL MENU screen.

Thank you very much for your wise choice of the Ikegami DPS Camera. Please carefully read this Instruction Manual to keep your camera at full capacity.

This DPS camera is equipped with a 1/3" WDR digital image device.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**CAUTION:** ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PART RESPONSIBLE FOR COMPLIANCE COULD VOID THE USERS AUTHORITY TO OPERATE THE EQUIPMENT.

### Instructions for Disposal of Electric and Electronic Equipment in Private Household

**Disposal of used Electric and Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)**

This symbol on the product, or in the related documents in the package, indicates that this product shall not be treated as normal household waste. Instead, it should be taken to a proper applicable collection point or depot for the recycling of electric and electronic equipment.

By ensuring this product is disposed of correctly, you will help prevent possible negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city authority, your household waste disposal service or the place where you purchased the product.

#### 5. Auto iris lens connector (LENS)

The connector is specifically used to connect the auto iris lens.

**Y For the video type auto iris lens**

Set the lens selector switch to VIDEO position.

- Connector cable leads —
- 1. Red (power)
- 2. Not used
- 3. White (video)
- 4. Black (shielded)



\* Dress the tip of the green lead to prevent a short-circuit.

**Y For the DC type auto iris lens**

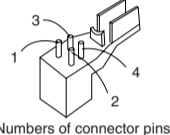
Set the lens selector switch to DC position.

Connector cable leads —

- 1. Damping coil (-)
- 2. Damping coil (+)
- 3. Driving coil (+)
- 4. Driving coil (-)



\* Connect the leads as shown above. Refer also to the instructions of the lens.



#### 6. Lens selector switch

The switch has two positions, for a video iris lens and a DC iris lens.

#### 7. Camera setup function switches

Refer to the Operation chapter.

#### 8. Power indicator (POWER)

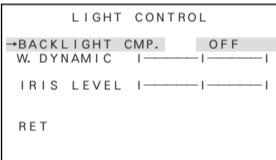
The LED indicator stays on in green while the camera power is on.

#### 9. DC12V/AC24V power input terminal

Keep the input power at DC10.5-15.0 V or AC24V±10%  
\* This installation should be made by a qualified service person and should conform to all local codes.

### 6-4-2. LIGHT CONTROL

- 1) Select LIGHT CONTROL on the main menu screen. Press the E button, and the screen at right shows up.**  
\* The IRIS LEVEL item appears only when the lens selector switch at the camera's back is set at DC.



#### 2) BACKLIGHT CMP.

Highlight this item and the backlight compensation modes can be selected (ON, 1SPOT, 2SPOT and OFF).

##### 1) ON

Usual backlight compensation is made.

##### 2) 1SPOT

Select 1SPOT and press the E button. Press the E button again on ADJUST ZONE, and the photometric field setting screen shows up. Each time the E button is pressed, the photometric frame color turns blue, green and red in this order.

- Blue

Using the U, D, L or R button, the field can be moved wherever you like.

- Green

Using the U, D, L or R button, the field can be enlarged.

- Red

Using the U, D, L or R button, the field can be reduced.

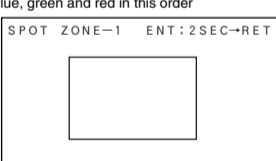
\* To quit the field setting screen, hold down the E button longer than 2 seconds. Once the 1SPOT ZONE screen appears, select RET and press the E button. The previous menu shows up.

##### 3) 2SPOT

As with the 1SPOT mode, two photometric fields can be preset. Take the same procedure as for the 1SPOT mode.

##### 4) OFF

The backlight compensation function is off.



#### 2) OK:

Used to go to the SELECT VIDEO STANDARD screen. (See at right).

Highlight VIDEO STANDARD. With the L or R button, the NTSC and PAL systems can be switched each other.

\* Each time another system is selected, the current settings will be back to their factory ones.  
\* Select RET, and the SPECIAL MENU screen reappears.

#### 3) COLOR BAR

Press the E button to get the color bars displayed. Press the E button again to go back to the SPECIAL MENU screen.

#### 4) CHROMA

With the L and R buttons, the chroma level can be adjusted. Make the adjustment to your desired level while watching an image onscreen.

#### 5) DETAIL

With the L and R buttons, the details can be adjusted. Make the adjustment to your taste while watching an image onscreen.

#### 6) SETUP

With the L and R buttons, the setup level can be selected: 0 IRE and 7.5 IRE.

#### 7) RET

Used to go back to the main menu screen.

## 7. Warranty and after-sale service

A warranty accompanies this product. Read and fill out the warranty card that you have received at your dealer. Keep this card in a safe place.

- Please consult Ikegami Electronics (U.S.A.) Inc. or Ikegami Electronics (Europe) GmbH or your dealer for full warranty information. Your dealer will repair or replace free of charge within the warranty period according to the warranty coverage.
- For repairs after the expiration of the warranty period, consult your dealer or sales representative. It will first be judged whether the trouble is repairable or not. Charged servicing will then be made upon request of the user.
- Before you ask for servicing, take trouble of reading the Instruction Manual. If the unit still fails, take note of the model number, date of purchase, problem, etc. in detail, and inform your dealer or sales representative.
- If you have questions about the after-sale service, contact your dealer or sales representative.  
\* We suggest you ask for preventive inspection earlier.

## 1. Handling precautions

- Do not install the camera in a water-splashed or highly humid place.
- Do not use the camera where the ambient temperature drops below -10°C or rises above +50°C. The images and component parts may be adversely affected or the camera may get in trouble.
- Never open the case of the camera because there are precision parts inside. Otherwise a trouble or accident may result.
- Do not put anything metallic and other foreign substances through the vent. A trouble, fire or electric shock may result.
- Be sure to turn off the power before installing or making connections.
- Do not install the camera in places exposed to vibrations and shocks.
- Be very careful not to drop or shock the camera while carrying it in.
- Do not touch the imaging device
- Do not orient the camera to the sun.
- Some types of lenses may cause hunting, light amount drop or other problems. In such case, readjust the lenses.
- \* Because of the digital image device characteristics, images may look rugged at high temperatures. This does not mean the camera is in trouble.

## 2. General

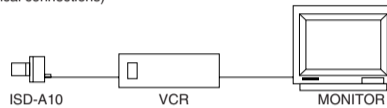
This color camera is provided with a 1/3-inch approximate wide dynamic range (WDR) digital image device. It features WDR, high sensitivity and high resolution, and is equipped with many functions such as backlight compensation, automatic iris control and line lock. The camera is best suited for being set up at ATMs and being housed in other systems. General CCTV lenses can also be employed, which enables the camera for general-purpose monitoring.

## 5. Connection

### Video output connector (VIDEO OUT)

- This is the output connector of video signal.
- The connector is used to connect the video camera to the video input connector of a monitor, switcher or the like. (To be connected with 75-ohm impedance)
- Use a coaxial cable for connection.

(Typical connections)



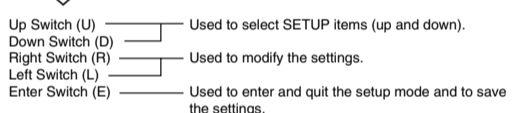
## 6. Operation

### 6-1. User setup

This camera can be user-set for picture quality, sync control, IDs, etc. The SETUP MENU comes in a tree format. The onscreen display of characters is used to make various settings.

### 6-2. SETUP switches and their functions

- The pushbuttons and their markings at left are provided on the back of the camera.



- Up Switch (U) Used to select SETUP items (up and down).
- Down Switch (D) Used to modify the settings.
- Right Switch (R)
- Left Switch (L)
- Enter Switch (E) Used to enter and quit the setup mode and to save the settings.

\* To enter the setup mode, hold down the E button longer than 2 seconds.

#### 3) W. DYNAMIC

The wide dynamic level can be varied with the L and R buttons. The intermediate level is initially set. In shooting scenes with greatly fluctuating light quantities, move the marker to the right to get a higher effect. Position the marker while watching an actual scene.

#### 4) IRIS LEVEL

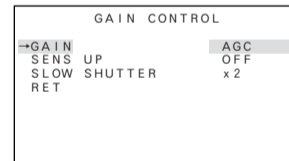
This item appears when the DC type iris lens is in use. Move the marker to the right, and the aperture is reduced (images get darker). Position the marker while watching an actual scene.

#### 5) RET

Press the E button to go back to the main menu screen.

### 6-4-3. GAIN

- Select GAIN on the main menu screen. Press the E button, and the screen at right shows up.
- GAIN



With the L and R buttons, the gain control modes can be selected.

##### 1) AGC

This mode is initially set to automatically optimize the sensitivity and noise levels.

##### 2) HYP-AGC

This mode is higher in sensitivity than AGC. But images may look rugged at higher sensitivities.

##### 3) LOW

This fixed-gain mode keeps the sensitivity low for brighter spots.

##### 4) MID

This fixed-gain mode keeps the sensitivity middle between HIGH and LOW.

##### 5) HIGH

The fixed-gain mode keeps the sensitivity high for darker spots.

##### 6) SENS UP

The electronic sensitivity up modes can be selected with the L and R buttons. At all the positions but OFF, the automatic gain control function turns on itself. The HYP-AGC mode can also be switched on.

##### 1) OFF (initial setting)

##### 2) SN

The signal-to-noise ratio priority mode is used in shooting subjects that vary in brightness and move slightly.

##### 3) STD

The standard mode is used in shooting subjects in brightness-changing spots to suppress both blurry images and rugged looks.

## 8. Specifications

- Imaging device: 1/3-inch WDR digital imaging device
- No. of effective pixels: Approx. 380,000 pixels, 720(H) x 540(V)
- Scanning system: NTSC/PAL-compatible
- Sync system: INT/Line-Lock (phase adjustable)
- Video output: VBS 1.0 Vp-p/75 ohms
- Horizontal resolution: 480 TV lines
- S/N ratio: 50 dB (luminance signal, at rated illumination, Detail OFF and Weight ON)
- Minimum subject illumination: 1 lux/F1.4 (AGC ON)  
0.03 lux/F1.4 (electronic sensitivity up x32)  
(Light source color temperature 3100K, subject reflectance 89.9%)
- AGC: ON (AGC, HYPER-AGC)/OFF (LOW, MID, HIGH) selectable
- Electronic sensitivity up: Automatic (up to 32 times: interlocked with AGC mode)
- White balance: ATW/ATWex/AWC/MANU selectable
- WDR function: Variable at 36 levels
- Iris level: Adjustable
- Camera ID: Up to 24 characters (alphanumeric and symbols)
- Power supply: AC 24 V ±10% (50/60 Hz), DC 12 V (10.5-15 V)
- Power consumption: Approx. 5.2 W
- Ambient operating temperature: -10 to +50°C
- Camera mount: 1/4" -20UNC (top and bottom mountable)
- Outer dimensions: 64(W) x 64(H) x 61.5(D) mm
- Weight: Approx. 350 g
- Input/output connectors: VIDEO OUT; BNC  
LENS; 4P (applicable plug E4-191J-150 or equivalent)  
AC24V/DC12V input; 2P push-in terminal
- Accessories: Instruction Manual, 1 copy  
Lens connector plug, 1 pc. (PAL system) (E4-191J-150 or equivalent)

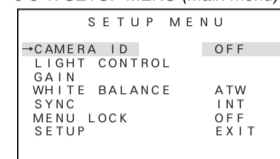
\* Specifications and design are subject to change for product improvements without notice.

## 3. Features

- Wide dynamic range (WDR)**  
The WDR function provides for backlight compensation in a wide dynamic range. Being shot even in wide-illumination-fluctuating spots, bright-and-dark subjects can be captured clearly and in a natural look.
- Automatic white balance**  
Thanks to the automatic follow-up white balance control (ATW), the white balance adjusts itself no matter how greatly the subject's color temperature fluctuates.
- High-quality picture and high resolution**  
The camera is designed for low smear level and low noise. The DSP (Digital Signal Processor) effectively enhances details, which achieves crisp and sharp images with high signal-to-noise ratio. The high resolution is backed up by a horizontal resolution of 480 TV lines and a vertical resolution of 400 TV lines.
- High sensitivity**  
Various modes of automatic gain control (AGC) are available to finely adjust the camera settings depending on the subject's illumination conditions. With the AGC and slow shutter in combination, high sensitivities of up to 0.03 lux/F1.4 are achieved.
- Camera setup function**  
The control buttons on the back of the camera enable to change and save the camera's settings.
- Two-way automatic iris control**  
This function is available to switch between video type iris lens and DC type iris lens. In other words, almost all types of CCTV automatic iris lenses can be employed.
- The flange focal distance adjusting mechanism makes it easy to readjust the focus tracking when a zoom lens is used.**

### 6-3. Entering the setup mode and its basics

#### 6-3-1. SETUP MENU (Main menu)

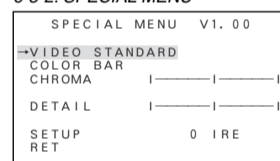


Hold down the E button longer than 2 seconds, and the menu at left appears onscreen. A highlighted item is now selected.

- 1) CAMERA ID**  
Up to 24 characters can be displayed onscreen.
- 2) LIGHT CONTROL**  
The backlight compensation and spot photometry modes are selected. The wide dynamic level and DC type iris lens are adjusted.
- 3) GAIN**  
The gain control and electronic sensitivity up modes are selected. The electronic sensitivity multiplying factor is also selected.
- 4) WHITE BALANCE**  
The white balance mode is selected. The manual white balance settings are made.
- 5) SYNC**  
The sync systems (INT and LL) are selected and set up.
- 6) MENU LOCK**  
The saved settings can be locked.
- 7) SETUP**  
The EXIT, CANCEL or RESET action is selected and executed.  
1) EXIT: Used to save the settings and to quit the menu.  
2) CANCEL: Used to return the settings to the previously saved ones.  
3) RESET: Used to return the settings to the factory ones.

\* New settings are not saved if EXIT is selected to quit the menu.

#### 6-3-2. SPECIAL MENU



Highlight EXIT on the SETUP MENU screen. Hold down the L and R buttons together, and the screen at left appears onscreen.

#### 4) MOVE

The motion priority mode is used in shooting subjects that vary in brightness and move greatly like on the street and in parking lots.

\* Note: With the sensitivity multiplying factor at maximum, the motion-dependent blurriness and ruggedness look the same in all the 3 modes.

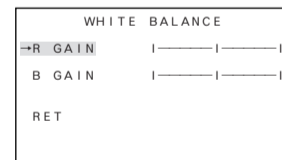
#### 4) SLOW SHUTTER

The electronic sensitivity multiplying factor can be adjusted with the L and R buttons.  
x2, x4, x8, x16, x32  
The higher the factor, the higher the sensitivity, but motions at maximum factor look unnatural.

### 6-4-4. WHITE BALANCE

The white balance mode is selected. The manual white balance settings are made.

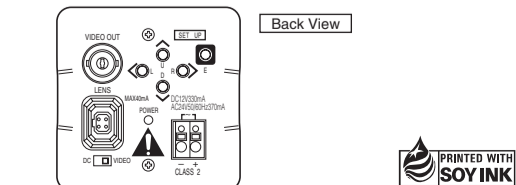
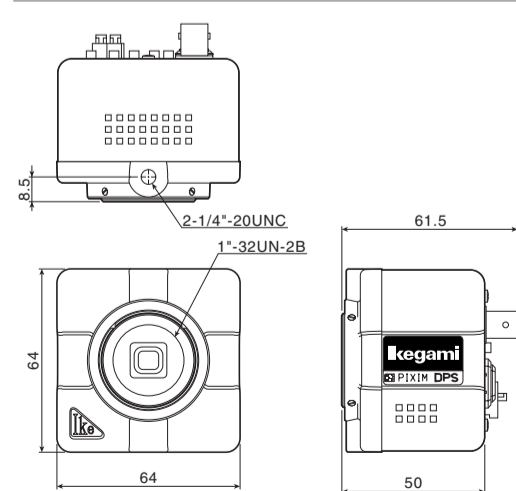
- The white balance modes can be switched with the L and R buttons.  
1) ATW (initial setting)  
White balance is automatically followed up.  
2) ATW Ex  
White balance is automatically followed up, but the color temperature range gets higher than the ATW mode. Compared with the ATW mode, color fading may be caused under usual light sources.  
3) AWC  
This is the so-called one-push automatic white balance control. Shoot a target white subject and press the E button, and the white balance will be adjusted.  
4) MANUAL  
Select MANUAL, press the E button and the screen at left appears onscreen. R GAIN is used to adjust the reddish shades. B GAIN is used to adjust the bluish shades.



### 6-4-5. SYNC

- The INT and LL modes can be selected with the L and R buttons.
- INT  
The internal sync mode is selected.
- LL  
The line lock mode is selected. Press the E button, and the screen at right shows up.

## 9. Appearance View



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SOY INK

10. Setup tree

