OKINA USA

SIR42-365AI
SIR42-365AIP

Operational Manual

42 IR Day & Night Weatherproof Color Camera with Mechanical IR Cut Filter


FEATURES

- 1/3" Ex-View CCD
- 650 TV Lines
- 42 IR LED
- 3.7mm~12.0mm Aspherical Auto Iris Vari-Focal Lens
- **Mechanical IR Cut Filter – ICR**
- IR Distance up to 120ft / 40m
  Selectable IR projecting distance design (Hi/Mid/Low)
- 0.3 Lux @ F1.6
- External Function Adjustors
- Cable Management Bracket; IP66 Rating
- IR "on": 320mA (Low) / 420mA (Mid) / 750mA (High)
  IR "off": 130mA
- 12V DC

FC CE

I-337
R201110-V07

> ⚠ *Please read the <u>Manual</u> before attempting to use this product.*

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN!

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential 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 office, your household waste disposal service or the shop where you purchased the product.

CAUTION

1. Never point the camera toward the sun
   Do not expose the lens directly to the sun or to strong light as this may damage the pick-up device.

2. Handle this camera with care
   Avoid any shock or bumping of the camera. Improper handling could damage the camera.

3. Requires a proper operating environment
   This camera is designed for indoor use. The allowable temperature range for operation of this camera is between -4°F ~ 122°F / -10°C ~ 50°C.

4. Clean the front face or lens

It is recommended that the surface be cleaned every 3~6 months. Cleaning should be done by using a chamois, a very fine soft cloth, lens tissue, or cotton tipped applicator and ethanol to carefully remove any fingerprint or dust.

5. Check the power source voltage

The power source voltage should be within the specified range. (Camera must meet the specifications). Camera must be connected to a surge protector at all times.

6. Objects and liquid entry

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

7. Servicing

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

8. Damage requiring service

Unplug this video product from the wall outlet and refer service to qualified servicing personnel under the following conditions:
- a. When the power supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the video product.
- c. If the video product has been exposed to rain or water.
- d. If the video product has been dropped or the cabinet has been damaged.
- e. When the video product exhibits a distinct change in performance.

PACKAGE CONTENTS
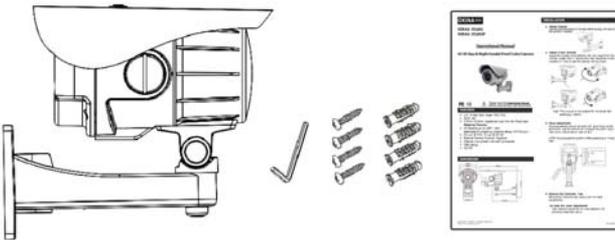
- One (1) SIR42-365AI/SIR42-365AIP Camera with power/video cable and sunshield
- One (1) Allen Wrench
- Four (4) Screws
- Four (4) Wall Anchors
- One (1) Operational Manual

* For any returns, please include all components listed above with original packaging in **Resalable Condition**. **Absolutely No Returns** will be accepted if any component is missing/damaged.

DIMENSIONS & PARTS FUNCTIONS

109mm
95mm
267mm
172.4mm
55.4mm
175.5mm
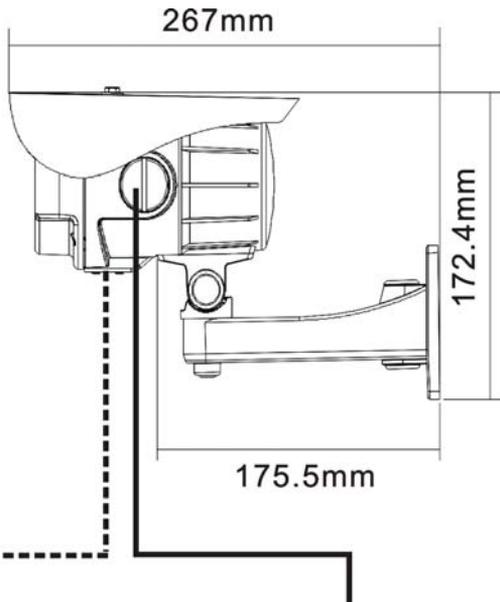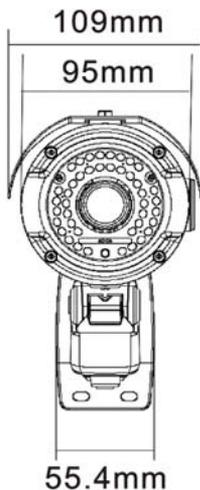
External Focus-Adjustment

Zoom Control Adjustment
F : Far
N : Near

F   N

Angle View Adjustment
W : Wide
N : Tele

W   T

OSD Adjustment

UP
LEFT ENTER RIGHT
DOWN

H
M
L
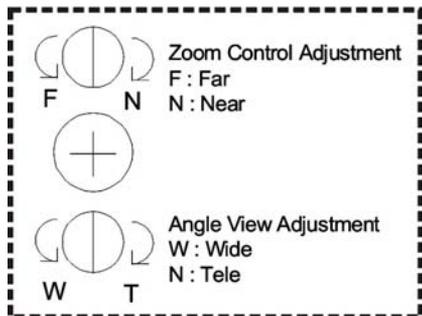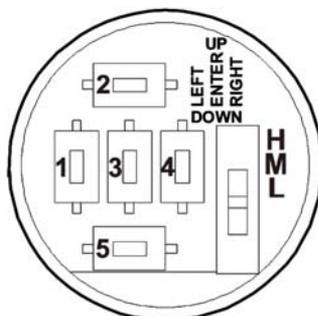
1 Left Key
2 Up Key
3 Enter Key
4 Right Key
5 Down Key

OSD Button (Menu):

| No.	Name	Function
1	LEFT	LEFT
2	UP	UP
3	ENTER	Get in MENU and ENTER
4	RIGHT	RIGHT
5	DOWN	DOWN

INSTALLATION

1. Install Camera
Use the supplied screws and secure the camera in position.
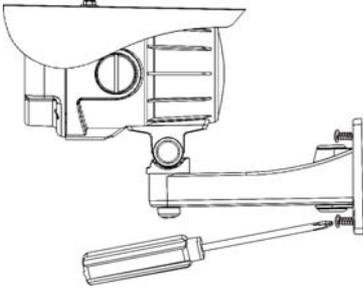
2. Adjust 2-Axis Bracket
Adjust the bracket while checking the view angle from the monitor. Loosen the X-Y screws and then adjust the 2-Axis bracket (X-Y Axis) to get the desired viewing angle.

X-AXIS Adjustment

180°

Y-AXIS Adjustment

45°
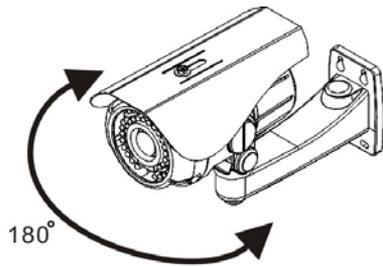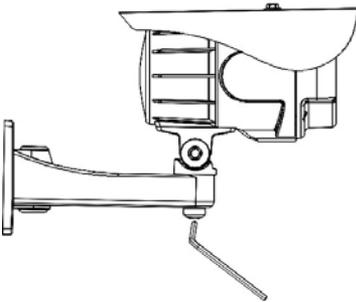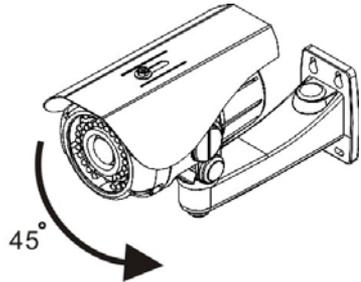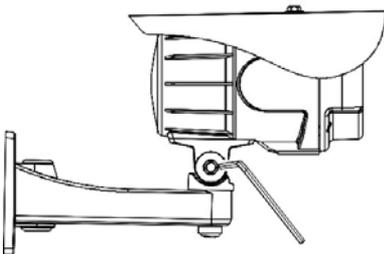
NOTE: This product is not suitable for horizontal 360° continuous rotation.

3. Focus Adjustment
Focus adjustment should be done with zoom focus at the same time. Use the screwdriver to adjust the zoom/ focus ratio (from wide to tele or near to far).

NOTE: Focus adjustment position differs depending on model type.

BOTTOM VIEW

Zoom Control Adjustment
F: Far
N: Near

Angle View Adjustment
W: Wide
T: Tele
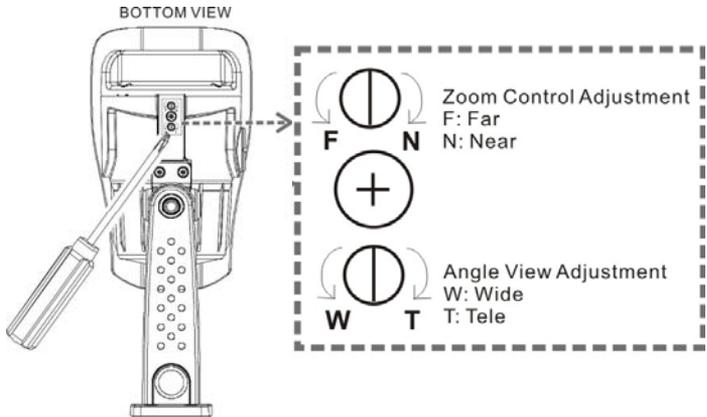
4. Remove the Controller Cap
With your free hand or a coin remove the controller cap and make adjustments.

SIDE VIEW

(1) Function Selection Switch
1 Left Key
2 Up Key
3 Enter Key
4 Right Key
5 Down Key

Remove the controller cap by free hand or using a coin to make setups or necessary adjustments.

(2) IR Distance Adjustment

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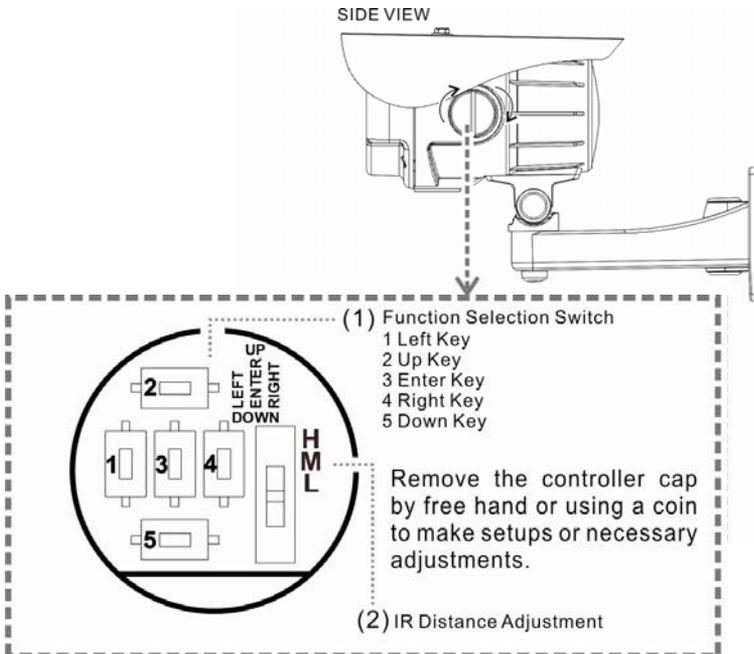
(1) Function Switch

    1 Left Key
    2 Up Key
    3 Enter Key
    4 Right Key
    5 Down

### (2) IR Distance/Power Consumption Adjustment

Installer may use IR adjustment function according to installation conditions. It is suggested that the view angle should be checked before setting up the IR distance. Below is the suggested LED brightness and IR distance adjustment table:

LED Brightness	IR Distance	Focal Length	Power Consumption
H (High)	80ft~130ft / 25m~40m	9mm~22mm	750mA
M (Middle)	50ft~80ft / 15m~25m	6mm~12mm	420mA
L (Low)	30ft~50ft / 10m~15m	3.7mm~6mm	320mA

* The suggested LED brightness and IR distance adjustment is for reference only. Please adjust accordingly in regards to the environment the camera is mounted. Use less power if there are reflections.

5. Install Sunshield

To install the sunshield, please follow the instruction shown below:

TOP VIEW

Fixing Bolt for Sunshield

You can release the bolt in order to slide the Sunshield forward or backward and secure the bold to fix the Sunshield in position.

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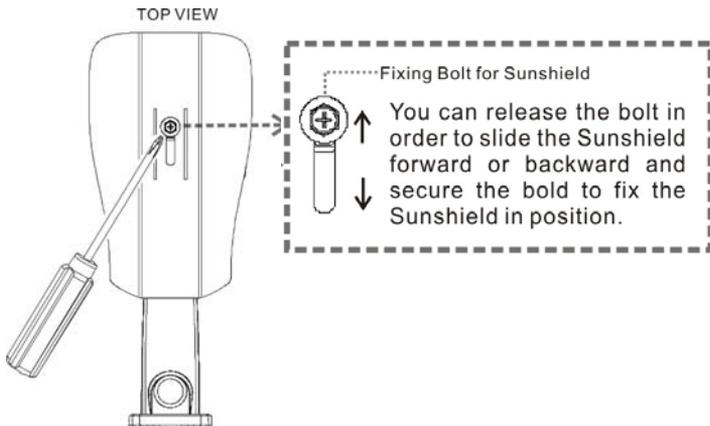
6. **Connect to Monitor**
   Connect the Video-out port of the camera to a monitor. As the connecting method varies depending on the instrument, therefore refer to the manual supplied with the instrument for more information.
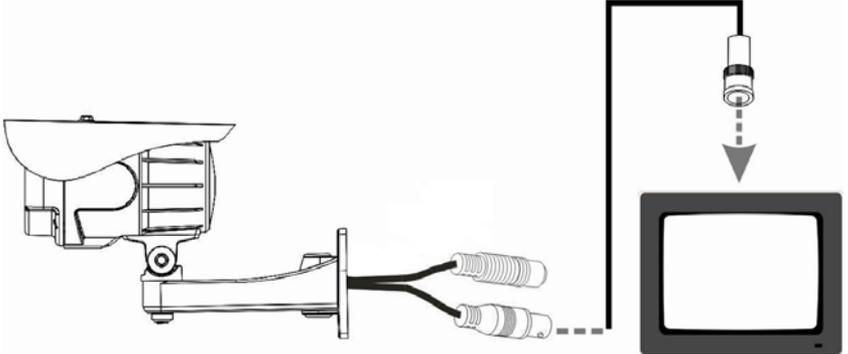
7. **Connect the Power**
   Connect to a 12V DC, 500mA adaptor.
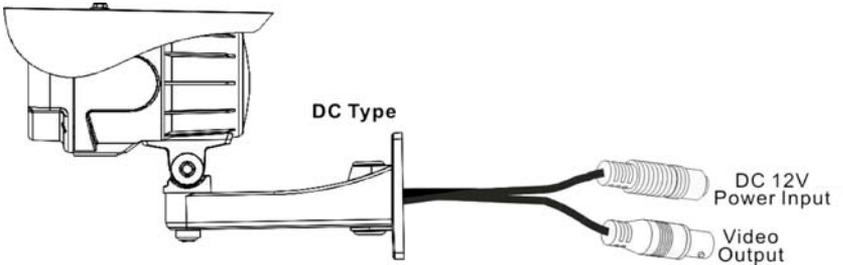
1. OSD Framework

(A) Main Menu Display

OSD Setup Menu page 1	
LENS	AUTO↵
SHUTTER /AGC	AUTO↵
WHITE BAL	ATW
BACKLIGHT	OFF
ATR	OFF
NR	↵
PICT ADJUST	↵
NEXT↵	
EXIT↵ SAVE ALL	

OSD Setup Menu page 2	
PRIVACY	OFF
MOTION DET	OFF
CAMERA ID	OFF
LANGUAGE	ENGLISH
CAMERA RESET	
BACK↵	
EXIT↵ SAVE ALL	

(B) Main Menu Setup

- In order to display the setup menu on the screen, set the menu command or press the button panel.

- Use UP/ DOWN control buttons to select each item.

- Use LEFT/ RIGHT control buttons to change the data.

- Use MENU control button to ENTER/ EXIT the menu display.

- ↵=ENTER

2. OSD Main Menu Description

LENS: Manual / Auto Selectable
- LENS: MANUAL
  Not adjustable.

- LENS: AUTO

AUTO	TYPE：DC
	MODE：AUTO/ OPEN /CLOSE
	SPEED：000~255

AUTO   Camera automatically controls the lens

OPEN   Lens fully open

CLOSE   Lens fully close

SPEED   Lens speed

SHUTTER/AGC: Auto / Manual Selectable
- **SHUTTER/AGC: AUTO**

AUTO	HIGH LUMINANCE
	MODE：SHUT+AUTO IRIS / AUTO IRIS / SHUT
	BRIGHTNESS：000~255
	LOW LUMINANCE
	MODE：AGC / OFF
	BRIGHTNESS：x0.25、x0.50、x0.75、x1.00

HIGH LUMINANCE
When LENS is setup to AUTO mode
SHUT+AUTO IRIS: Exposure is controlled by auto electronic shutter combined with auto iris.

AUTO IRIS: Exposure controlled by auto iris.

When LENS is setup to Manual mode
SHUT: Exposure controlled by electronic shutter.

LOW LUMINANCE

Setup low lux environment, minimum AGC level.

- **SHUTTER/AGC: MANUAL**

	MODE：SHUT+AGC
MANUAL	SHUTTER：1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
	AGC：6.00、12.00、18.00、24.00、30.00、36.00、42.00、44.80

SHUTTER: Fixed electronic shutter speed.
AGC: Fixed AGC gain control.

WHITE BALANCE:
ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH LOCK
selectable.

- **WHITE BAL: ATW**

	SPEED：000~255
ATW	DELAY CNT：000~255
	ATW FRAME：x0.50、x1.00、x1.50、x2.00
	ENVIRONMENT：INDOOR、OUTDOOR

SPEED：ATW Speed
DELAY CNT： ATW Delay Time
ATW FRAME： ATW Frame Range Setup
ENVIRONMENT： ATW Environment Range Setup

- **WHITE BAL: PUSH**
  The function will keep detecting the Color Temperature, and then it will keep saving the parameter to camera.

- **WHITE BAL: USER1**

USER1	B-GAIN：000~255
	R-GAIN：000~255

- **WHITE BAL: USER2**

USER2	B-GAIN：000~255
	R-GAIN：000~255

- **WHITE BAL: MANUAL**

MANUAL	LEVEL：19~54

- **WHITE BAL: ANTI CR**
  The function can reduce the color rolling issue, and it is the same with CRS (Color Rolling Support) function.

- **WHITE BAL: PUSH LOCK**
  The function will detect the Color Temperature to save into the camera

BACKLIGHT: BLC / HLC / Off Selectable
- **BACKLIGHT: BLC**

  Enable the function of Back Light Compensation, and the detection method is the BLC Smart.

- **BACKLIGHT: HLC**
  Enable the function of High Light Compensation.

ATR: On / Off Selectable
- ATR: ON

LUMINANCE	LOW、MID、HIGH
CONTRAST	LOW、MIDLOW、MID、MIDHIGH、HIGH

LUMINANCE： Set the extent of the luminance compression

CONTRAST： Set the extent of the contrast enhancement.

NOTE: If you enable the ATR funciton, please avoid to enable the BACKLIGHT function in the same time.

NR:

NR MODE	Y/C、Y、C、OFF
Y LEVEL	000~015
C LEVEL	000~015

NR MODE: Set the DNR mode of Y/C, Y and C.

Y LEVEL: Set the Y filter strength.

C LEVEL: Set the "C" filter strength.

NOTE: The Y/C mode is the automanic DNR mode.

PICTURE ADJUST

MIRROR	ON / OFF
BRIGHTNESS	000~255
CONTRAST	000~255
SHARPNESS	000~255
HUE	000~255
GAIN	000~255

Adjust all camera parameters here.

NEXT:

Move to MAIN MENU, page 2

EXIT:

Exit OSD to choose the list.

SAVE ALL

When you change the OSD menu settings, SAVE ALL before leaving the OSD. Press ENTER key to change the memory settings for the OSD.

PRIVACY: On / Off Selectable
- **PRIVACY: ON**

AREA SEL	Max. 8
TOP	000~244 (NTSC) / 000~288(PAL)
BOTTOM	000~244 (NTSC) / 000~288(PAL)
LEFT	560TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)
RIGHT	560TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)
COLOR	1~8
TRANSP	0.00 / 0.50 / 0.75 / 1.00
MOSAIC	ON / OFF

AREA SEL: Select the mask frame to be adjusted.

NOTE: When the MONITOR AREA has been set to ON by the MOTION DET setting, only 4 PRIVACY AREA SEL are selectable (1 / 4, 2 / 4, 3 / 4, 4 / 4).

TOP: Set the top side of the mask frame selected

BOTTOM: Set the bottom side of the mask frame selected

LEFT: Set the left side of the mask frame selected

RIGHT: Set the right side of the mask frame selected

COLOR: Set the colors of the mask frames.

TRANSP: Set the transparency ratio of the mask frames.

MOSAIC: Set the mask frame mosaic function to ON or OFF.

MOTION: On / Off Selectable

- MOTION DET: ON

DETECT SENSE	000~127
BLOCK DISP	ON / OFF / ENABLE
MONITOR AREA	ON / OFF
AREA SEL	1~4
TOP	000~244 (NTSC) / 000~288(PAL)
BOTTOM	000~244 (NTSC) / 000~288(PAL)
LEFT	540TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)
RIGHT	540TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)

DETECT SENSE: Set the motion detection sensitivity.

BLOCK DISP: Control the ON/ OFF status of the motion detection block display.

MONITOR AREA: Set whether to use the monitoring frames.

AREA SEL: Select the monitoring frame to be set.

TOP: Set the top side of the monitoring frame selected

BOTTOM: Set the bottom side of the monitoring frame selected

LEFT: Set the left side of the monitoring frame selected

RIGHT: Set the right side of the monitoring frame selected

CAMERA ID: On / Off Selectable

```
ABCDEFGHIJKLMNOPQRSTUV
WXYZ0123456789-!"#$%&'
()_  `,¥ : ; < = >?@\ ^*.x+/
        CHR1
    ← → ↑ ↓ CLR POS
```

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0 1 2 3 4 5 6 7 8 9 - ! " # $ % & ' ( ) _ , ¥ : ; < = > ? @ \ ^ * . x + /	Each User Font
← → ↑ ↓	The camera ID cursor moves in the direction of the arrow when the Enter operation input is performed from the status in which ←, →, ↑ or ↓ has been selected using the character selection cursor.
CLR	The character selected by the camera ID cursor is cleared when the Enter operation input is performed from the status in which CLR has been selected using the character selection cursor.
POS	The display switches to the camera ID display position setting screen when the Enter operation input is performed from the status in which POS has been selected using the character selection cursor. On the camera ID display position setting screen, the camera ID display position is changed in real time in response to the left, right, up or down operation input. When the Enter operation input is performed, the display position is entered, and the display returns to the camera ID setting screen.

LANGUAGE

There are 8 kind of language: English / Japanese / German / French /

Russian / Portuguese / Spanish / Simplified Chinese selectable.

CAMERA RESET

Reset Factory default setup.

BACK

Return to MAIN MENU, page1.

SPECIFICATIONS

Model		SIR42-365AI	SIR42-365AIP
System		NTSC	PAL
Image Sensor		1/3" Ex-View CCD	
DSP		Sony	
Total Pixel		976(H) x 494(V)	976(H) x 582 (V)
Synchronizing System		Internal	
Resolution		650 TV Lines	
Minimum Illumination		0.3 Lux @ F2.0 / 0 Lux @ IR "on"	
S/N Ratio		More than 48dB (AGC Off)	
Adaptive Tone Reduction (ATR)		On / Off	
Digital Noise Reduction (DNR)		On / Off	
Flickerless		On / Off	
Auto Gain Control		Auto / Manual	
White Balance		ATW / PUSH / USER1 / USER 2 / ANTI CR / Manual / PUSH LOCK	
Back Light Compensation		On / Off	
High Light Compensation		On / Off	
Gamma		0.45	
Electronic Shutter		Auto: 1/60~1/100,000s Manual: 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	Auto: 1/50~1/110,000s Manual: 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
Video Output		1Vp-p composite / 75 Ω	
Mechanical IR Cut Filter - ICR		Yes	
Lens		3.7mm~12.0mm Aspherical Vari-Focal Lens	
IR LED		42 IR LED	
IR Wavelength		850 nm	
IR Distance		120ft / 40m Low, Mid, High Selectable	
Privacy		Maximum 8 Areas	
Motion Detect		4 Areas	
Camera ID		Up to 52 Characters	
Mirror		On / Off	
Positive / Negative		On / Off	
IP Rating		IP66	
Power Supply		12V DC ± 10%	
Power Consumption	IR ON	320mA (Low) / 420mA (Mid) / 750mA (High)	
	IR Off	130mA	

Operating Temperature	14°F ~ 122°F / -10°C ~ +50°C
Dimension	10.51(L) x 4.29(W) x 6.77(H) inches / 267(L) x 109(W) x 172(H) mm with sunshield

* Specifications are subject to change without notice.

LIMITED WARRANTY

OKINA USA products are covered under warranty for one (1) year from the date of purchase. The warranty will automatically be voided if any of the following occurs:

1. Camera sticker is removed
   If the camera sticker is removed, we will not be able to confirm any information regarding when and where the product was purchased. We have no other way to verify the purchase record without the serial number on the camera sticker; therefore, it should not be removed.

2. Camera is modified in any way
   If the camera is scratched, damaged, or modified in a manner not described in this manual, the warranty will be voided immediately. It is the customer's responsibility to keep the camera in good condition.

3. Video or power cable is cut
   The video cable and the power cable should not be tampered with. Cutting or modifying of the cables will result in termination of the warranty.