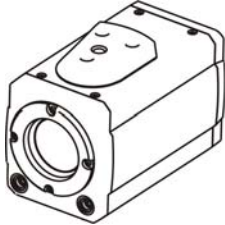Thank you for purchasing our product.
Please read this User's Manual before
using the product. Change without Notice

AUTO LENS CAMERA

User's Manual

CONTENT TABLE

SAFETY PRECAUTIONS

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insulated dangerous Voltage within the product's enclosure that may be sufficient magnitude to constitute risk of electrical shock to persons.

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

1. Do not touch the imaging surface of sensor. Use soft cloth moistened with alcohol to clean the surface if it is touched accidentally.
2. Ensure the supply voltage is correct as specified for the particular variant of camera before operation.
3. Do not expose the camera to rain, moisture or to temperature outside the specified limit, without a suitable housing.
4. Avoid focusing directly on the sun
5. Do not attempt to service this unit yourself unless you are authorized to do so. Opening cover may exposure you to dangerous voltage or other hazards. Refer all servicing to qualified personnel only.

FCC STATEMENT

WARNING
  This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:
  (1) This device may not cause harmful interference.
  (2) This device must accept any interference received including
      interference that may cause undesired operation."

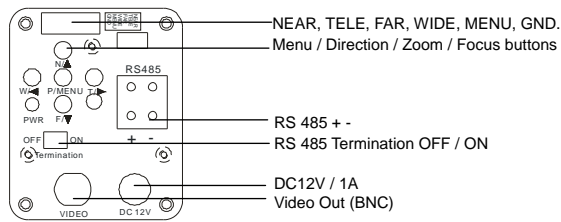** Federal Communications Commission (FCC) Statement*

WARNING
  This Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the ser is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to
    which the receiver is connected.
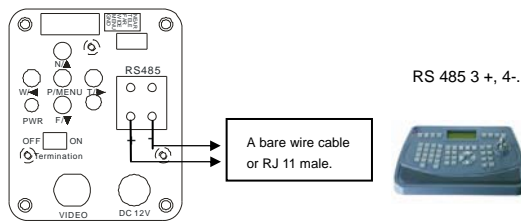 - Consult the dealer or an experienced radio/TV technician for help.

* You are cautioned that changes or modifications not expressly
  approved by the party responsible for compliance could void your
  authority to operate the equipment.

REAR PANEL

NEAR, TELE, FAR, WIDE, MENU, GND.
Menu / Direction / Zoom / Focus buttons

RS 485 + -
RS 485 Termination OFF / ON

DC12V / 1A
Video Out (BNC)

Menu	: Press menu for 2 ~ 3 seconds, MENU OSD ON.
Direction button	**:** Down / Left Right. N / F (Near / Far). T / W (TELE / WIDE)
RS 485 + -	: RS 485 control port.
Termination	: OFF / ON
DC 12 V / 1A	: Power supply.
Video Out	: Video out connector.
Pan / Til dry connector	: NEAR, TELE, FAR, WIDE, MENU, GND.

Control cable connect

RS 485 3 +, 4-.
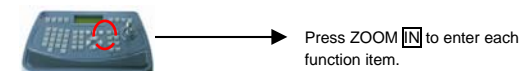
A bare wire cable
or RJ 11 male.

FUNCTION SETUP

Call camera menu pop up:
Ex: One control keyboard from a CCTV manufactory in Taiwan.

1. Press numeric button (95) then preset button (preset) until 2 ~ 3 seconds after beep twice.
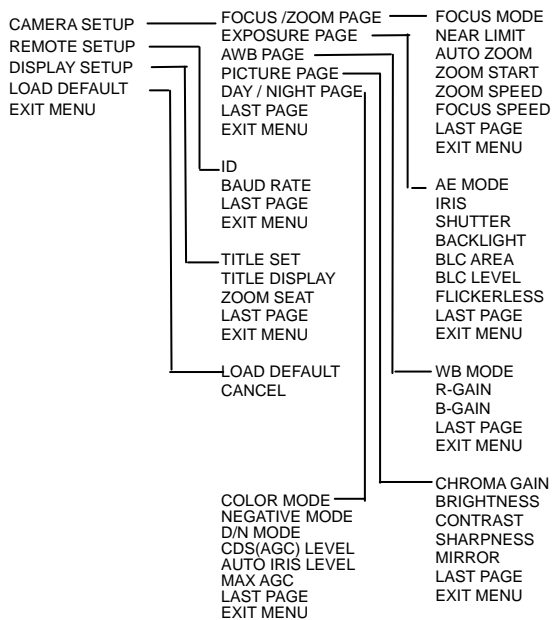2. Press MENU button until 2 ~ 3 seconds after beep twice.

95

→ Prese

→ MENU

Function item move and values change:

Joystick moves up or down to change item position.

Joystick moves left or right to change function values.

Press ZOOM IN to enter each function item.

MENU TREE

(Main menu)

CAMERA SETUP — FOCUS /ZOOM PAGE — FOCUS MODE
REMOTE SETUP   EXPOSURE PAGE   NEAR LIMIT
DISPLAY SETUP   AWB PAGE   AUTO ZOOM
LOAD DEFAULT   PICTURE PAGE   ZOOM START
EXIT MENU   DAY / NIGHT PAGE   ZOOM SPEED
                  LAST PAGE   FOCUS SPEED
                  EXIT MENU   LAST PAGE
                                     EXIT MENU

ID   AE MODE
BAUD RATE   IRIS
LAST PAGE   SHUTTER
EXIT MENU   BACKLIGHT
                                     BLC AREA
TITLE SET   BLC LEVEL
TITLE DISPLAY   FLICKERLESS
ZOOM SEAT   LAST PAGE
LAST PAGE   EXIT MENU
EXIT MENU

LOAD DEFAULT   WB MODE
CANCEL   R-GAIN
                                     B-GAIN
                                     LAST PAGE
                                     EXIT MENU

COLOR MODE   CHROMA GAIN
NEGATIVE MODE   BRIGHTNESS
D/N MODE   CONTRAST
CDS(AGC) LEVEL   SHARPNESS
AUTO IRIS LEVEL   MIRROR
MAX AGC   LAST PAGE
LAST PAGE   EXIT MENU
EXIT MENU

In OSD MENU , camera will not to do AF adjustment

MENU SETUP

CAMERA SETUP ——————————————— FOCUS/ZOOM PAGE
REMOTE SETUP   EXPOSURE PAGE
DISPLAY SETUP   AWB PAGE
LOAD DEFAULT   PICTURE PAGE
EXIT MENU   DAY/NIGHT PAGE
                                LAST PAGE
                                EXIT MENU

CAMERA SETUP

  >FOCUS/ZOOM PAGE

FUNCTION	Values
FOCUS MODE	AUTO / MANUAL / 1 PUSH
NEAR LIMIT	1 cm / 10 cm / 50 cm / 1M / 2 M / 3 M / 5M / 10M
AUTO ZOOM	ON. / OFF.
ZOOM START	22X: 1X~20X 35X: 1X~30X
ZOOM SPEED	0~7
FOCUS SPEED	0~7 (Manual Focus Speed)
LAST PAGE	Return to previous page
EXIT MENU	EXIT MENU

1 PUSH: Just do auto focus one time after each zoom action.

NEAR LIMIT:
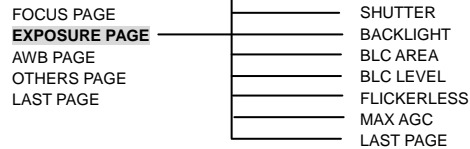When the zoom is 1x, the nearest distance range of auto focus.

For example:
When the object you are focusing is from 10M to limitless, you can then set the 10M to be the NEAR LIMIT.
Under auto focus, the camera will start focusing from 10M, the auto focus range and focus time cost would be less than 1 CM NEAR LIMIT.

Auto Zoom ON:(Only available in auto focus mode.)
If object is out of focus for 10~ 15 seconds, lens will auto zoom out and then auto focus again.

ZOOM START : You can set the ZOOM WIDE limit
If you set the ZOOM START be 2X , the ZOOM Lens wide limit is 2X

Page 9

>EXPOSURE PAGE

FOCUS PAGE
EXPOSURE PAGE —————
AWB PAGE
OTHERS PAGE
LAST PAGE

- AE MODE
- IRIS
- SHUTTER
- BACKLIGHT
- BLC AREA
- BLC LEVEL
- FLICKERLESS
- MAX AGC
- LAST PAGE

AE MODE	AUTO / SHUTTER / IRIS / MANUAL
IRIS	AUTO / MANUAL
SHUTTER	1/60 (1/50)~1/100,000 second
BACKLIGHT	ON / OFF
BLC AREA	CETNER / LEFT / RIGHT / TOP / BOTTOM
BLC LEVEL	LOW / NORMAL / HIGH
FLICKERLESS	ON / OFF.
LAST PAGE	Return to previous page
EXIT MENU	EXIT MENU

AE Mode
Set on AUTO (Auto Iris):
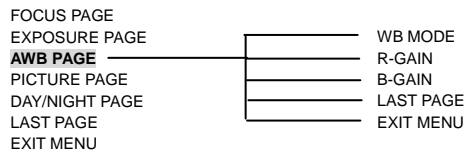SHUTTER will be set on AUTO, and IRIS is on auto mode.

Set on SHUTTER:
SHUTTER is adjustable, and IRIS is on auto mode. (This mode is suggested to use in indoor.)

Set on IRIS:
IRIS is on Maximum mode, and SHUTTER is on auto mode. This mode is suggested to use in outdoor.

Set on MANUAL:
SHUTTER and IRIS are all on manual mode.
In this mode, the buttons Focus Near / Far become to control IRIS OPEN/CLOSE

FLICKERLESS MODE:
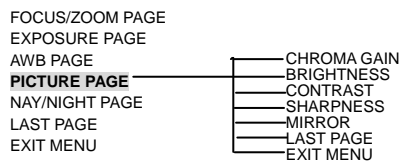Flickerless function cannot work with backlight together.

Page 10

>AWB PAGE

FOCUS PAGE
EXPOSURE PAGE
AWB PAGE —————
PICTURE PAGE
DAY/NIGHT PAGE
LAST PAGE
EXIT MENU

- WB MODE
- R-GAIN
- B-GAIN
- LAST PAGE
- EXIT MENU

WB MODE	AUTO / MANUAL / INDOOR / OUTDOOR/AT-LOCK
R-GAIN	000 ~ 255
B-GAIN	000 ~ 255
LAST PAGE	Return to previous page
EXIT MENU	EXIT MENU

 # When WB MODE is set be AT-LOCK , you can press camera button "MENU" or remote "Zoom in" to adjust WB for one time , then the camera WB will lock

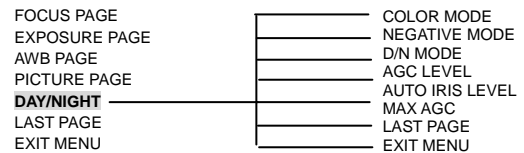**# MANUAL: R-GAIN, B-GAIN can adjust by user**

 # INDOOR / OUTDOOR value is fixed.

Page 11

>PICTURE PAGE

FOCUS/ZOOM PAGE
EXPOSURE PAGE
AWB PAGE
PICTURE PAGE —————
NAY/NIGHT PAGE
LAST PAGE
EXIT MENU

- CHROMA GAIN
- BRIGHTNESS
- CONTRAST
- SHARPNESS
- MIRROR
- LAST PAGE
- EXIT MENU

CHROMA GAIN	30~60
BRIGHTNESS	0~20
CONTRAST	50~200
SHARPNESS	LOW / NORMAL / HIGH
MIRROR	ON/ OFF
LAST PAGE	Return to previous page
EXIT MENU	EXIT MENU

Page 12

>DAY / NIGHT PAGE

FOCUS PAGE
EXPOSURE PAGE
AWB PAGE
PICTURE PAGE
DAY/NIGHT —————
LAST PAGE
EXIT MENU

- COLOR MODE
- NEGATIVE MODE
- D/N MODE
- AGC LEVEL
- AUTO IRIS LEVEL
- MAX AGC
- LAST PAGE
- EXIT MENU

COLOR MODE	ON / OFF
NEGATIVE MODE	ON / OFF
D/N MODE	AGC / DAY / NIGHT / CDS
AGC (CDS) LEVEL	AGC:0 ~ -15 / 0 ~ +15 CDS: 0 ~ -50 / 0 ~ +15
AUTO IRIS LEVEL	0 ~ -25 / 0 ~ +25
AGC MAX	50 ~ 250
LAST PAGE	Return to previous page

D / N mode (Day and Night mode):
-DAY: Force to day mode. (IR CUT ON)
-NIGHT: Force to night mode. (IR CUT OFF)
-AGC: Switch by AGC level.
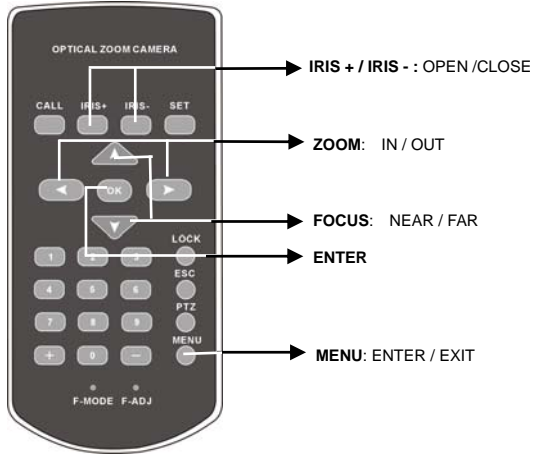 (Only work on Auto / Shutter mode with BLC: OFF)
 When you set the AGC to be high , the AGC MAX also need to set to higher
-CDS: Switch by CDS level.
AUTO IRIS level: On auto IRIS mode, brightness is adjustable by this level.

PS. Color and negative function, only active in DAY mode.

REMOTE SETUP

```
CAMERA SETUP                    ID
REMOTE SETUP   ─────────┐       BAUD RATE
DISPLAY SETUP           │       LAST PAGE
LOAD DEFAULT            └        EXIT MENU
EXIT MENU
```
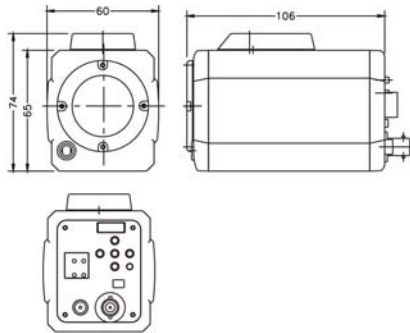
ID	1 ~ 255.
BAUD RATE	2400 / 4800 / 9600
LAST PAGE	Return to previous page

the PROTOCOL is PELCO-P and PELCO-D in Auto detect

DISPLAY SETUP

```
CAMERA SETUP                    TITLE SET
REMOTE SETUP   ─────────┐       TITLE DISPLAY
DISPLAY SETUP  ─────────┤       ZOOM SEAT
LOAD DEFAULT            │       LAST PAGE
EXIT MENU              └        EXIT MENU
```

TITLE SET	0,1,2,3,4,5,6,7,8,9,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, - ; : ; / ; . ; , ;( )
TITLE DISPLAY	ON / OFF
ZOOM SEAT	ON / OFF
LAST PAGE	Return to previous page
EXIT MENU	EXIT MENU

LOAD DEFAULT

```
CAMERA SETUP
REMOTE SETUP
DISPLAY SETUP
LOAD DEFAULT  ───────    LOAD DEFAULT
EXIT MENU                CANCEL.
```

That is for confirm to LOAD DEFAULT or Cancel

Choose LOAD DEFAULT to load Default Settings.

Choose CANCEL to back Main Menu.

EXIT MENU

```
CAMERA SETUP
REMOTE SETUP
DISPLAY SETUP
LOAD DEFAULT
EXIT MENU  ──────────    Press menu button to Exit Menu
```

REMOTE CONTROLLER

IRIS + / IRIS - : OPEN /CLOSE

ZOOM: IN / OUT

FOCUS: NEAR / FAR

ENTER

MENU: ENTER / EXIT

SPECIFICATION

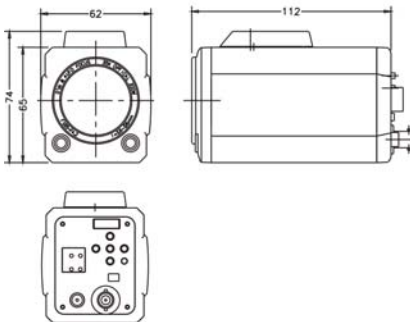| Type	35x Zoom	22x Zoom
Pick up device	1/4" Interline transfer CCD	
Signal System	NTSC / PAL	
Total Pixels	NTSC:811(H)x508(V) / PAL:795(H)x596(V)	
Horizontal Resolution	530 TV Lines	
S/N Ratio	More Than 48 dB	
Lens	35X Zoom (f=3.6mm~126mm, F1.65~F4.2)	22X Zoom (f=3.9mm~85.8mm, F1.6~F3.7)
Minimum Illumination	0.5 Lux / F1.6	0.5 Lux / F1.6
Day/Night Function	AGC / DAY / NIGHT / CDS	
Zoom Speed	Max. speed 10 sec./ wide →tele	Max. speed 4 sec./ wide →tele
White Balance	Auto / Manual	
BLC Function	ON/OFF	
AGC	ON/OFF (level setup)	
Flickerless	ON / OFF	
Electronic Shutter	Auto / Manual/Shutter / IRIS	
Shutter Speed	NTSC: 1/60~1/100,000 sec. PAL: 1/50~1/100,000 sec.	
Focus	Auto / Manual / one push	
Preset Function	64	
OSD	For functions setting	
Video Output	1.0Vp-p / 75 ohm composite	
RS485 Control	RS485 with2400, 4800, 9600	
DC Power Source	DC 12V	
Operation Temperature	-10°C~50°C (14 to122℉)	
Storage Temperature	-20°C~70°C (-4 to158℉)	
Operation Humidity	10%~80% RH	
Storage Humidity	10%~80% RH	
Dimensions	62(W) x 112(D) x 74(H) mm	62(W) x 112(D) x 74(H) mm

DIMENSION

22X Zoom

35X Zoom