

600TV LINE WDR MINI CASE CAMERA

MCWB-2.9N

INSTRUCTION MANUAL



Color Day/Night Ultra High Resolution Camera with Wide Dynamic Range

v1.0 English

PARTS DESCRIPTION

After un-packing, check if the following items are contained inside :

- Instruction manual (1)
- Mounting Screw (1)
- Video/Power Cable (1)

INSTALLATION AND ADJUSTMENT

Note: The camera can be mounted on both ceiling and wall.

1. Remove the bracket and mount the camera to the desired location by using the provided screw.
2. Set the camera by rotating it around the screw and angling it using the bracket.
3. Fasten all screws to hold the camera in place.

NOTICE

This device complies with Part 15 of the 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.

Disposal of your old appliance

1. If the symbol below is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electric products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old products, please contact your city office, waste disposal service or the shop where you purchased the product.



PRODUCT FEATURES

Ultra High Resolution :

Advanced DSP technology combined with Sony's Super HAD II 410K pixel CCD enables the camera to achieve a clean picture of 600TV Lines.

WDR (Wide Dynamic Range) :

Provides true WDR performance by using dual channel operations.

Sens-up :

Digitally manipulates the exposure level of the image to produce bright images in the darkest of scenarios.

Day / Night :

Automatically detects the optimum point when to switch between color and black & white.

3D-DNR (3D Digital Noise Reduction) :

Advanced 3D-DNR algorithms allow for a clean picture even under extreme low light environments.

Integrated 2.9mm Fixed Lens

Designed for indoor use.

SAFETY PRECAUTIONS

1. The installation should be made by qualified service engineers and should conform to all local codes.
2. To prevent fire or electric shock, do not expose the camera to rain or moisture.
3. To prevent fire or electric shock, UL listed wiring should be used for the DC 12V input.
4. Use only DC 12V regulated power supply marked class 2.
5. Never attempt to disassemble or modify the camera.
6. Be sure to connect each lead to the appropriate terminal. An incorrect connection may cause damage to the camera.
7. Do not attempt to aim the camera at the sun or other extremely bright objects.
8. Do not allow the camera to be subject to unstable location, strong shocks and vibration, and strong electromagnetic field.
9. If any abnormality occurs, immediately turn off the power and consult your dealer.

OSD MENU TREE

CAM NAME	• ON	• OFF								
LENS	• DC IRIS	• MANUAL	• EZ FOCUS							
EXPOSURE	• AGC	• SHUTTER	• SENS-UP	• LOW LIGHT GAIN	• INITIAL SET	• PREVIOUS				
DAY / NIGHT	• AUTO	• COLOR	• B/W	• CDS						
WDR / BLC / HLC	• WDR	• BLC	• HLC							
WHITE BAL	• ATW1	• ATW2	• AWC-SET	• MANUAL						
3D-DNR	• ON	• OFF								
EFFECTS	• DZOOM MODE	• IMAGE FREEZE	• D-EFFECT	• CONTRAST	• SHARPNESS	• COLOR ADJUST	• INITIAL SET	• PREVIOUS		
SPECIAL	• MOTION DET.	• PRIVACY	• LANGUAGE	• STABILIZER	• L/L SYNC	• MONITOR TYPE	• WSC MODE	• FACTORY RESET	• COMM SET	• PREVIOUS
EXIT										

The detailed functions and parameter settings for your camera can be set in the OSD (On Screen Display) menu. To access this menu your camera must have an OSD controller or a RS-485 connection.

OSD Controls

[Enter/Set] : Enters the OSD Menu, Selects the desire option.

[Directional Buttons] : Navigates through the OSD Menu.

[Long Left] : Accesses the EZ Focus Mode.

OSD MENU FUNCTIONS

CAM NAME : Adjusts camera title settings.

- OFF : The camera name will not be displayed onscreen.
- ON : Press [Set] to access the submenu.
Enter the desired camera name, select [POS] to select the desired position, then select [END] to exit and apply the changes.

LENS : Controls various settings related to the lens.

- DC IRIS : Used with DC auto iris lens.
BRIGHTNESS : Adjusts image brightness.
REACTION SPEED : Adjusts the iris reaction speed.
- MANUAL : Used with manual lens.
BRIGHTNESS : Adjusts image brightness.
- EZ FOCUS : Temporary mode used to focus the lens.

EXPOSURE : Adjusts exposure settings.

- AGC : Adjusts the AGC level.
- SHUTTER : Sets the desired shutter option.
- SENS-UP : Sets the desired multiple of the digital exposure length.
- LOW LIGHT GAIN : Sets the amount of digital gain to use within the system.

DAY / NIGHT : Adjust Day / Night options.

- AUTO : Automatically determines the D/N switching points.
D/N LEVEL : Adjusts the switching point level.
DWELL TIME : Adjusts the calculation time for the trigger.
NIGHT BURST : Enables night burst when in B/W mode.
- COLOR : Color mode.
- B/W : B/W mode.
- CDS : Uses the CDS sensor to determine the switching point (IR Products)
LSC MODE : Toggles the LSC mode on or off.
LSC LEVEL : Adjusts the intensity of the LSC mode.

WDR / BLC / HLC : Adjusts backlight options.

- WDR : Uses a true wide dynamic range algorithm to balance dark and over saturated areas within the image.
WDR LEVEL : Adjusts the WDR level.
- BLC : Produces a clearer image of an object darkened by strong backlighting.
BLC LEVEL : Adjusts the BLC level.
- HLC : Masks out strong backlighting to produce a clearer image.
AREA SETTING : Sets which areas will be active for the HLC feature.
ALL AREA SET : Sets all areas active.
MASK COLOR : Sets the desired color of the masked area.
HLC LEVEL : Adjusts the level of masking.
GAIN CONTROL : Sets when the HLC will be active.

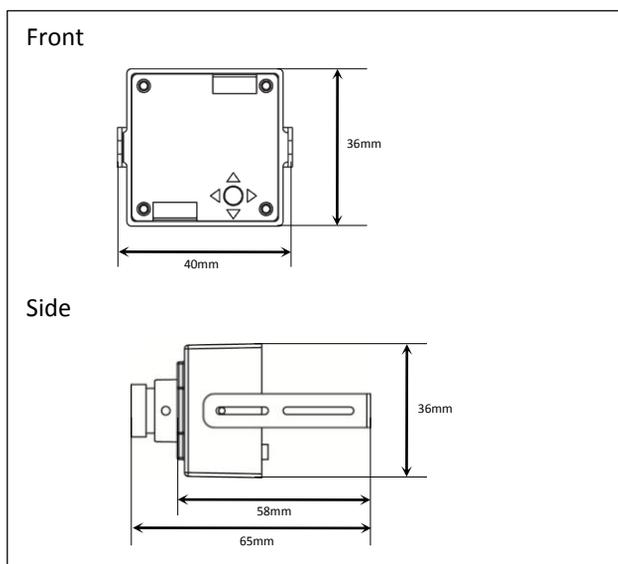
WHITE BAL : Adjusts white balancing options.

- ATW1 : Automatically white balances the image.
- ATW2 : Automatically white balances the image and compensates for some color rolling.
- AWC-SET : Press [SET] to white balances the image to a specific light environment.
This mode will not adjust to a new light environment.
- MANUAL : Select ATW1 or AWC-set then enter the MANUAL white balancing mode to manually adjust the scene to your desired settings.

3D-DNR : Reduces the background noise caused by the digital enhancement of a low light environment. If AGC is turned OFF, the 3D-DNR will be disabled.

- DNR LEVEL : Sets the level of noise reduction; the higher the level the less the noise.
- DNR BLACK LEVEL : Sets the low light environment black level; the higher the level the brighter the image. Please note that decreasing the DNR BLACK LEVEL too much will result in the low light
- GLOBAL MOVEMENT: Used to reduce a trailing effect caused by motion.

DIMENSIONS



EFFECTS : Adjusts various effect options.

- DZOOM MODE : Digitally zooms a desired section of the image.
- IMAGE FREEZE : Holds the image displayed on screen.
- D-EFFECT : Masks out strong backlighting to produce a clearer image.
- VERTICAL FLIP : Flips the images along the x-axis.
- MIRROR : Flips the image along the y-axis.
- ROTATE : Rotates the image.
- CONTRAST : Sets the contrast of the image.
- SHARPNESS : Sets the amount of sharpness applied on the image.
- COLOR ADJUST : Used to tune the general color of the image.
COLOR : Toggles the color on or off.
COLOR LEVEL : Sets the color level of the image; the higher the level the stronger the color.
COLOR HUE : Sets the hue of the image.
RED GAIN : Sets the amount of red gain applied on the image.
BLUE GAIN : Sets the amount of blue gain applied on the image.

SPECIAL : Adjusts various special options.

- MOTION DET : Adjust motion detection settings. There is a initialization period of ~15sec. **Requires the alarm relay option.*
ZONE NUMBER : Selects the current motion zone.
ZONE STATE : Toggles the motion zone on or off.
WIDTH : Sets the width of the motion zone.
HEIGHT : Sets the height of the motion zone.
MOVE X : Moves the motion zone horizontally.
MOVE Y : Moves the motion zone vertically.
SENSITIVITY : Adjusts the sensitivity of motion detection.
- PRIVACY MASK : Used to hide regions of the image.
MASK NUMBER : Selects the current mask number
MASK STATE : Toggles the mask on or off.
MASK COLOR : Selects the desired mask color.
WIDTH : Sets the width of the mask.
HEIGHT : Sets the height of the mask.
MOVE X : Moves the mask horizontally.
MOVE Y : Moves the mask vertically.
- LANGUAGE : Sets the desired OSD language.
(ENGLISH, GERMAN, SPANISH, FRENCH, RUSSIAN, POLISH).
- STABILIZER : Used to digitally stabilize an image effected by wind/vibration.
- L/L SYNC : Sets the desired line lock method.
INT : Uses the internal system to synchronize a line lock.
L/L : Uses the power signal to synchronize a line lock. **Requires the dual voltage option.*
- MONITOR TYPE : Sets the video output to three main input types.
CRT : Best used for CRT monitors.
LCD : Best used for LCD monitors.
LIN : Best used for input types that require no gamma correction.
- FACTORY RESET : Resets all settings to it's factory defaults.
- COMM SET : Used to configure the RS-485 port. **Requires the RS-485 option.*
PROTOCOL : Only 1 protocol supported at the moment (Pelco-D)
CAMERA ID : Sets the ID for the RS-485 (0~255).
BAUD RATE : Sets the baud rate for the RS-485 (4800~57600).
SAVE/REBOOT : Activates the new settings and reboots the camera.

SPECIFICATIONS

ITEM	600TVL WDR CAMERA
Power Source	DC 12V
Image Sensor	1/3" SONY SUPER HAD CCD II (ICX638/639BK)
Total Pixels	811(H) x 508(V) (NTSC) , 795(H) x 596(V) (PAL)
Effective Pixels	768(H) x 494(V) (NTSC) , 755(H) x 582(V) (PAL)
Scanning System	2 : 1 Interlace
Synchronization	Internal / Line Lock
H. Resolution	600 TV Line
Min. Illumination	0.05Lux(50IRE@F1.2) 0.0001Lux (Sens-Up x 512)
S/N (Y signal)	52dB (AGC Off, Weight On)
On Screen Display	Built-in
AGC	OFF LOW MIDDLE HIGH
Shutter	OFF A.FLK 1/160 ~ 1/90000 x2 ~ x512 AUTO
SENS-UP	OFF AUTO (x2 ~ x512)
DAY / NIGHT	AUTO COLOR B/W CDS
WDR	ON OFF (Level Adjustable)
BLC	More than 72dB with Dual Channel Operation
HLC	ON OFF (Level Adjustable)
HLC	(Area Selectable, Level Adjustable)
White Balance	ATW1 ATW2 AWC-SET MANUAL (Color Temp. 2300K~16000K)
3D-DNR	ON OFF Level Adjustable (3D Filtering System)
EFFECTS	DZoom Mode Image Freeze D-Effect Contrast Sharpness Color Adjust
Motion Detection	ON OFF (8 Programmable Zone)
Privacy Masking	ON OFF (8 Programmable Zone)
Stabilizer	ON OFF (Digital Image Stabilizer)
Miscellaneous	L/L, Monitor Type, Multi-Language OSD
Operational Temp.	-10°C ~ +50°C / Max 95% RH
Storing Temp.	-20°C ~ +60°C / Max 95% RH