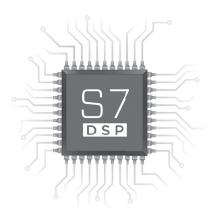
clintonelectronics



ON SCREEN DISPLAY User Manual

Clinton Electronics Corp. 6701 Clinton Road. Loves Park, IL 61111

IMPORTANT SAFETY INSTRUCTIONS

- 1. Read these instructions.
- 2. Keep these instructions.
- Heed all warnings.
- 4. Follow all instructions
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer. 12. Use only with the cart, stand, tri-
- pod, bracket, or table specified by the manufacturer, or sold PORTABLE CART WARNING with the apparatus. When a cart is used. use caution when moving the cart/apparatus combination

tip-over.

to avoid injury from

- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture. does not operate normally, or has been dropped.



TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT DISASSEMBLE
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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



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.

In USA and Canada, Use Class 2 Power Supply Only

INFORMATION: This equipment has been tested and found to comply with 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.

DISCLAIMER: Clinton Electronics reserves the right to change the contents of this manual without prior notice.

WARNING: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

CAUTION: To prevent electric shock and risk of fire hazards:

- ◆ Do NOT use power sources other than that specified.
- ◆ Do NOT expose the inside of this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.

The camera requires periodic inspection.

Contact an authorized technician to carry out the inspection.



Stop using your camera if you find it malfunctioning.

If the camera emits smoke or is unusually hot for a long period, a fire may be caused.



Do not install the camera on a surface that can not support it.

If the camera is installed on an inappropriate surface, it may fall and cause injury.



Do not hold plug with wet hands.

It could cause an electric shock.



Do not disassemble the camera.

It may result in an electric shock or other hazards.



Do not use the camera close to a gas or oil leak.

It may result in a fire or other hazards.



Do not touch the front lens of the camera.

This is one of the most important parts of the camera. Be careful not to leave finger-prints on the lens cover.

Do not install the camera in extreme temperature conditions.

Only use the camera under conditions when temperatures are between $-20^{\circ}F - 122^{\circ}F$. Be especially careful to provide ventilation when operating under high temperatures.

Do not install the camera under unstable lighting conditions.

Severe lighting change or flicker can cause the camera to work improperly.



Do not drop the camera or subject it to physical shocks.

It can damage the housing, compromising weather resistance.



Do not expose the camera to radioactivity.

If exposed to radioactivity the CCD will fail.



Never keep the camera pointed directly at strong light.

It can damage the CCD.



TABLE OF CONTENTS

ON SCREEN DISPLAY MENU	01
OSD MENU SETTINGS	03
LENS DC, Manual	04
EXPOSURE Brightness, Shutter, Sens-Up	05
WHITE BALANCE ATW, AWB, AWC-SET, MANUAL	06
BACKLIGHT HLC, BLC, WDR	07
DNR Digital Noise Reduction	09
DAY & NIGHT Auto, Color, B&W, External	10
IMAGE Sharpness, Gamma, Pedestal, Color Gain, Mirror, Flip	11
SYSTEM Com., View Angle, CVBS, Language, Reset	12
SPECIAL D-Zoom, D-WDR, Defog, Shading, Privacy, Intelligent	13
EXIT	16
TROUBLESHOOTING	17

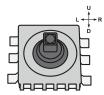
ON SCREEN DISPLAY MENU

Camera functions and settings can be adjusted or changed by activating the On Screen Display (OSD) menu. When the OSD menu is activated, settings will display on the monitor. The user can then move to the desired setting to change the make adjustments.

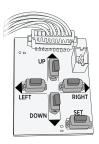
LENS	• DC	• MANUAL	
EXPOSURE	• BRIGHTNESS • AGC	• SHUTTER	• SENS-UP
WHITE BAL	• ATW • MANUAL	• AWB	• AWC-SET
BACKLIGHT	• HLC	• BLC	• WDR
DNR	• LOW	• MIDDLE	• HIGH
DAY & NIGHT	• AUTO • EXTERNAL	• COLOR	• B&W
IMAGE	• SHARPNESS • COLOR GAIN	• GAMMA • MIRROR	• PEDESTAL • FLIP
SYSTEM	• COM. • LANGUAGE	VIEW ANGLE RESET	• CVBS
SPECIAL	• D-ZOOM • SHADING	• D-WDR • PRIVACY	• DEFOG • INTELLIGENT
EXIT			

ACCESSING THE OSD

Camera settings can be adjusted using the built-in joystick, button pad, optional CE-REMOTE or the optional UTC (Up The Coax) REMOTE. UTC operation is not compatible with Public View Monitors (PVMs).



Joystick use: Press directly down on the joystick to activate the OSD menu.



Button pad use: Press the SET button to activate the OSD menu.



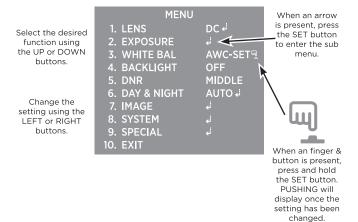
CE-REMOTE use: Plug the remote into port located on the camera. Press the SETUP button to activate the OSD menu.

*CE-REMOTE (sold separately) not available for every model.

OSD MENU SETTINGS

The selected OSD menu item will be shown in yellow. In this manual they will be shown highlighted with a grey box.

- 1. Press the joystick in or press the SET button.
 - Settings can only be changed when the OSD menu is displayed on the monitor.
- Scroll through menu items from the list available by moving the joystick UP or DOWN.
- 3. Move the joystick LEFT or RIGHT to change a setting.
- 4. When finished, select 'EXIT' and press the SET button to save settings.





NOTICE

- An item with the

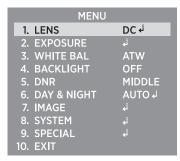
 icon also has sub menus. To select a sub menu, select an
 item with the icon and press the SET button.
- All menu items have a 'RETURN' option. With this function you have the option to go back to the previous menu screen.
- After 10 seconds of no activity the OSD Menu will disappear.





LENS

Use this function to select the lens type used on the camera.



From the main menu, scroll to LENS and select a desired mode using the Left or RIGHT buttons.

▶ DC

Select when using a camera lens equipped with automatic iris control.

MODE : INDOOR, OUTDOOR, DEBLUR

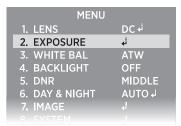
► MANUAL

Select when using a camera lens equipped with manual iris control.

MODE : INDOOR, DEBLUR

EXPOSURE

This function allows for the control of the amount of light that enters the camera. Too much light results in a washed out image.



From the main menu, scroll to EXPOSURE and press the SET button to access the sub-menu

▶ BRIGHTNESS

Adjusts the video brightness (0~20).

▶ SHUTTER

Selectable automatic or manual shutter speeds.

 AUTO : Select this to control the shutter speed automatically, depending on the ambient illumination of the subject.

MANUAL : You can control the shutter speed manually.

(1/60~1/60.000)

• FLICKER : Select this when you experience picture flicker, which can happen when there is a clash with the frequency

of the installed lighting.

► SENS-UP

During low light situations, the camera will automatically detect the light level and maintain a clear picture if this mode is activated.

• OFF : Deactivates the SENS-UP function.

• x1~x64 : Choose the appropriate level of SENS-UP.

► AGC (Auto Gain Control)

The higher the gain level, the brighter the screen, but the higher the noise.



NOTICE

 The higher the SENS-UP level, the brighter the screen, but the more likely it is that an after-image will appear. Possible image blur is normal with increased zoom while using SENS-UP.

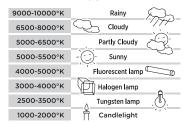




WHITE BALANCE

This function allows the ability to adjust the color temperature, based on colors being emitted from different light sources. Illumination is generally referred to as color temperature, which is represented in a measurement of kelvin (K).





From the main menu, scroll to WHITE BAL and select one of the 4 following modes using the Left or Right buttons.

- ► ATW (1,800°K ~ 10,500°K) Select this to automatically readjust the white balance each time a change in the ambient color temperature is detected.
- ► AWB (3,000°K ~ 7,000°K) Select this to set the white balance for only one particular environment. More accurate then ATW, but has to be reset manually when there is a change in ambient color temperature.
- ► AWC-SET Select this to find the optimal luminance level for the current environment, point the camera towards a sheet of white paper, then press and hold the SET button. 'PUSHING' will display once the change has been made.
- ► MANUAL

 Select this to fine-tune white balance manually. Kelvin and Red/Blue gain values are adjustable.



- WHITE BALANCE may not work properly under the following conditions:
- When the color temperature of the environment surrounding the subject is out of the control range (ie. clear sky or sunset).
- 2. When the ambient illumination of the subject is dim.
- If the camera is directed towards a fluorescent light or is installed in a place where illumination changes dramatically, the WHITE BALANCE operation may become unstable.

BACKLIGHT

This function is useful for adjusting areas of interest that appear too bright or too dark due to bright lighting conditions.

	MENU	
1.	LENS	DC 4 ^j
2.	EXPOSURE	
3.	WHITE BAL	ATW
4.	BACKLIGHT	HLC ₽
5.	DNR	MIDDLE
6.	DAY & NIGHT	AUTO ₽
7.	IMAGE	
8.	SYSTEM	
9.	SPECIAL	
10.	EXIT	

From the main menu, scroll to BACKLIGHT and select a desired mode using the LEFT or RIGHT buttons depending on the lighting conditions.

- ▶ OFF : No backlight compensation.
- ► HLC → (HIGH LIGHT COMPENSATION)

 If the scene contains extremely bright light areas such as car head lights, the light can mask out much of the on-screen detail. Use the HLC feature to remove these bright lit areas to allow detail such as a car license plate number to become visible.





HLC ON

HLC OFF

- LEVEL : The lower the level, the more of the HLC mask will be applied.
- MODE : Adjust when HLC is active; All Day or Night Only.



NOTICE

• For effective license plate observation, it needs minimum illumination and fast shutter speed more than 1/200sec.



BACKLIGHT

► BLC 4 (BACK LIGHT COMPENSATION)

If you have an area with a bright light source behind the area of interest, this can cause images to appear as silhouettes. Use this feature to adjust the exposure of a selected area to properly expose the subject in the foreground.





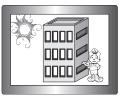
BLC ON

BLC OFF

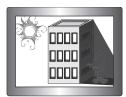
- H-POS/V-POS : Adjust Left or Right to move the BLC area.
- H-SIZE/V-SIZE : Adjust Left or Right to increase or decrease the size of the BLC area.

► WDR 4 (WIDE DYNAMIC RANGE)

This function illuminates darker areas of an image while retaining the same light level for brighter areas to even out the overall brightness of images with high contrast between bright and dark areas.







WDR OFF

NOTICE

- While using the BLC function, it is possible to have the bright portion of the scene appear overexposed.
- · Only one BACKLIGHT setting can be enabled at a time.

DNR (Digital Noise Reduction)

DNR (Digital Noise Reduction) reduces background image noise in a low light environment, improving visibility.

	MENU		
1.	LENS	DC ₊i	
2.	EXPOSURE		
3.	WHITE BAL	ATW	
4.	BACKLIGHT	OFF	
5.	DNR	MIDDLE	
6.	DAY & NIGHT	AUTO ₽	
7.	IMAGE		
8.	SYSTEM		
9.	SPECIAL		
10.	EXIT		

From the main menu, scroll to DNR and select one of the 3 following modes using the Left or Right buttons.

▶ OFF : No Noise Reduction.

► LOW/MIDDLE/HIGH



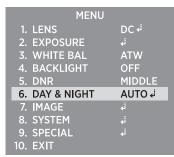


• When adjusting the noise reduction level, remember that the higher the level is set, the greater the reduction in noise level, as well as the brightness of the image.



DAY & NIGHT

This function displays images in color or B/W. In AUTO mode the camera will automatically transition to B/W to allow for clearer low-light images. This also allows cameras equipped with infrared illuminators to provide clear images in low-light or no-light situations.



From the main menu, scroll to DAY&NIGHT and select a desired mode using the Left or RIGHT buttons according to the picture display you want.

► AUTO ✓

The mode is switched to 'COLOR' in a normal environment, but switches to 'B/W' mode when ambient illumination is low.

SMART IR : Adjust to compensate IR saturation.

• AGC THRES : Day to Night change level.

AGC MARGIN : Night to Day change gap frame.

• DELAY : Change interval.

► COLOR

The image is always displayed in color. Automatic switching does not occur.

▶ B&W 4

The image is always displayed in black and white. You can turn on or off the burst signal on B/W mode. Automatic switching does not occur.

• SMART IR : Adjust to compensate IR saturation.

► EXTERN 4

This mode is used for cameras that have an external D/N filter, typically IR LED equipped cameras.

• SMART IR : Adjust to compensate IR saturation.

• EXTERN S/W : Night mode when external D/N filter is HIGH or LOW.

• DELAY : Change interval.

IMAGE

This function provides additional options to help with how the image is displayed on the screen.

	MENU	
1.	LENS	DC √ i
2.	EXPOSURE	
3.	WHITE BAL	ATW
4.	BACKLIGHT	OFF
5.	DNR	MIDDLE
6.	DAY & NIGHT	AUTO ₽
7.	IMAGE	اب
8.	SYSTEM	
9.	SPECIAL	
10.	EXIT	

From the main menu, scroll to IMAGE and press the SET button to access the sub-menu.

► SHARPNESS

The outline of the image becomes cleaner and more distinctive as the SHARPNESS level increases. If you increase the SHARPNESS level too high, the picture may become distorted or noise may appear.

► GAMMA

Adjust how light and color are displayed.

▶ PEDESTAL

Adjust the way black appears, as well as the luminance of the entire image.

► COLOR GAIN

The higher the value, the more saturated the colors are. The lower the value, the less color there is overall.

► MIRROR/FLIP

Depending on how or where the camera is installed, it may be necessary to flip the image vertically, horizontally or both.







SYSTEM

	MENU	
1.	LENS	DC ₽
	EXPOSURE	
3.	WHITE BAL	ATW
4.	BACKLIGHT	OFF
	DNR	MIDDLE
	DAY & NIGHT	AUTO ↓
7.	IMAGE	نه
	SYSTEM	له
	SPECIAL	4
10.	EXIT	

From the main menu, scroll to SYSTEM and press the SET button to access the sub-menu.

► COM. (Communication Adjust)

Used for RS-485 communication when controlling the camera through an external control device.

CAM ID : Set the camera's identification number 0-255.
 BAUDRATE : Select 2400/4800/9600/57600/115200 bps.

► VIEW ANGLE : Wide 4:3 / Wide 16:9 4 / NORMAL 4

► CVBS : NTSC or PAL

► LANGUAGE : ENGLISH, CHINESE, JAPANESE or KOREAN

► RESET

Press and hold the 'SET' button to reset the camera's OSD settings to the factory defaults. 'PUSHING' will display once the change has been made.



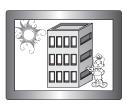
• RS485 communication is only available on select cameras.

SPECIAL

	MENU		
1.	LENS	DC ₽ ⁱ	
2.	EXPOSURE		
3.	WHITE BAL	ATW	
4.	BACKLIGHT	OFF	
5.	DNR	MIDDLE	
6.	DAY & NIGHT	AUTO ₄i	
7.	IMAGE		
8.	SYSTEM	نه	
9.	SPECIAL	له	
10.	EXIT		

- ► D-ZOOM (DIGITAL ZOOM) 1.0X~8.0X The higher the level of digital zoom, the lower the resolution is. D-ZOOM is disabled when MTN TRACKER is set to ON.
- ► D-WDR (DIGITAL WIDE DYNAMIC RANGE) Additional Digital Wide Dynamic enhancement of the image.
- ▶ DEFOG 4

Images in extraordinary environments such as fog, smoke, rain or smog have a dynamic range lower than ordinary images. This function is a contrast enhancement, which is used to overcome such shortcomings.





DEFOG ON

DEFOG OFF

► SHADING ✓

Select to adjust for smoke-tinted domes or image vignetting caused by wide angle lens limitations.

SPECIAL

▶ PRIVACY ₄I

Apply a mask to an area you want to hide. Useful in areas where a camera can see into areas that are not relevant to security needs.

 ZONE NUM : Select Privacy mask 0~15.

 ZONE DISP : Turn 'ON' or 'OFF' the selected mask.

 H-POS/V-POS : Adjust Left or Right to move the mask area.

 H-SIZE/V-SIZE : Adjust Left or Right to increase or decrease the size

of the mask area.

 Y/Cr/Cb LEVEL : Adjust the luminance and red/blue values, changing the overall color of the Privacy mask.

▶ INTELLIGENT 4

Useful functions for crime prevention & detection.

MTN TRACKER ↓

Track moving objects with a colored frame. (The colored frame option is disabled on certain camera models.) When motion is detected a motion output signal is sent from the camera.

- SENSITIVITY : The lower the value the more sensitive the camera will be to motion.

- OBJ. KEEP LV : Adjust how long the colored frame remains on screen. The higher the value will maintain the

colored frame, but is less precise.

- MOTION EST : If a moving object disappears, estimate where it will

: When a motion type is detected a signal is output from the camera: MTN TRACKER / ANTI-BLOCK /

ANTI-SHIFT.



NOTICE

- SIGNAL OUT

- For Public View Monitors (PVMs) 'MTN TRACKER' must be set to ON for the switching from sources (SD Card Player to Camera) when the IMAGE MODE is set to Motion.
- For PVMs, changing the SIGNAL OUT will change how the 'Motion' IMAGE MODE switches, ie: When set to MTN TRACKER the PVM will switch sources when motion is detected. When set to ANTI-BLOCK it will switch if/when something or someone is blocking the view of the camera. When set to AN-TI-SHIFT it will switch if/when someone is tampering with the camera/unit.
- The colored motion frame is disabled on certain model cameras, making some motion detection features not applicable.
- Enabling MTN TRACKER will disable D-ZOOM.

SPECIAL

► INTELLIGENT (Continued...)

- - $\ensuremath{\text{w}}$ WINDOW TONE : Add a mask to a motion zone. Motion detection will
 - be excluded from the mask. Set to 0 for no mask.
 - » WINDOW ZONE: Choose up to 4 motion zones.
 - » WINDOW USE : Turn ON or OFF the selected motion zone.
 - » DET H-POS : Adjust the horizontal position of the motion zone.
 » DET V-POS : Adjust the vertical position of the motion zone.
 » DET H-SIZE : Adjust the horizontal size of the motion zone.
 - » DET V-SIZE : Adjust the vertical size of the motion zone.

- » ANTI-SHIFT : If someone tampers with the camera, (shaking,
 - hitting, etc) a warning message will be displayed on
 - the monitor: "SHIFTING DETECTED !!!"
- » SHIFT SCALE : Adjust the sensitivity of the ANTI-SHIFT.
- » ANTI-BLOCK : If someone blocks the view of the camera, (covering
 - the camera with hands, spray paint, etc) a warning message will be displayed on the monitor: "BLOCKING
 - DETECTED !!!"
- » BLOCK SCALE : Adjust the sensitivity of the ANTI-BLOCK.

QUICK ZOOM ₽

Digital zoom to designated motion detection zones, the motion detection zones are setup in the MTN TRACKER menu.

- » MOVING : Adjust how quick the camera zooms in & out. A
 - lower time results in quicker zooms.
- » ZOOM IN : Adjust how long the camera will remained zoomed in, a higher time results in the camera staying
 - zoomed in longer.
- » STANDBY : Adjust how often the camera zooms in & out. A
 - lower amount of time will have the camera zoom in
 - & out more often.
- » SYNCHRONOUS: Zoom in & track the object in motion.
- » TRACKING : Track the object in motion while zoomed in.
- » REPEAT : Zoom in to the motion area again, after the camera
 - has zoomed out.

EXIT

	MENU	
1.	LENS	DC ↔
2.	EXPOSURE	
3.	WHITE BAL	ATW
4.	BACKLIGHT	OFF
5.	DNR	MIDDLE
6.	DAY & NIGHT	AUTO ₽
7.	IMAGE	
8.	SYSTEM	
9.	SPECIAL	نه
10.	EXIT	

From the main menu, scroll to EXIT and press the SET button to exit from the OSD menu.



• After 10 seconds of no activity the OSD Menu will disappear.

TROUBLESHOOTING

If you have trouble operating your camera, refer to the following table. If the guidelines do not enable you to solve the problem, contact Clinton Electronics Technical Support at 1-800-549-6393 or 815-633-1444.

Problem	Solution	
Nothing appears on the screen.	Check the power connection. Check the video signal line connection.	
The video image is not clear.	Check if the lens is clean. Clean the lens with a clean cloth. Adjust the contrast feature of the monitor. Make sure that the screen is not exposed directly to a bright light. Move the camera if necessary.	
The screen is dark.	• Adjust the contrast feature of the monitor. • Adjust the BRIGHTNESS level of the EXPOSURE. • If you have an intermediate device, set the $75\Omega/\text{Hi-z}$ properly, and check the terminals.	
There is a problem with the camera operation. The camera surface is too hot and black stripes appear on the screen.	 Check if an appropriate power source to the camera complies with the manufactur- er's standard requirement, or if the voltage keeps changing. 	
The motion function is not working.	Check if the MTN TRACKER is turned on. Check the SENSITIVITY level.	
Colors are not quite right.	Check the WHITE BAL setting. Adjust the COLOR GAIN and/or PEDESTAL	
The screen is flickering.	Check if the camera is facing directly into sunlight or fluorescent light. Move the camera if necessary. Set Shutter to Flicker	
SENS-UP function is not working.	Check if SENS-UP is set to AUTO. Check if Shutter settings are set to AUTO or 1/30.	
D-Zoom is not working.	Enabling MTN TRACKER will disable D-ZOOM.	

CONTACT



CCTV Sales 1-800-447-3306



CCTV Support 1-800-549-6393



Web www.clintonelectronics.com



Address 6701 Clinton Road Loves Park, IL 61111

clintonelectronics

Make sure you read this manual before using the camera. Store this manual safely so that you can use it in the future. Please use this manual along with the Installation Manual included with the camera.

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