clintonelectronics



ON SCREEN DISPLAY User Manual

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.

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

IMPORTANT SAFETY INSTRUCTIONS

Read these instructions.

Keep these instructions.

3. Heed all warnings.

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, tripod, 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 to avoid iniury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to gualified 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.



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.



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 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 fingerprints on the lens cover.

Do not install the camera in extreme temperature conditions.

Only use the camera under conditions when temperatures are between $-20^\circ\text{F} - 122^\circ\text{F}$. 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.



It can damage the CCD.



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OSD (On Screen Display) MENU

Camera functions and settings can be adjusted or changed by activating the OSD menu. When the OSD menu is activated, text will display on the monitor. The user can then move the cursor to the desired function to change the setting.

LENS	• DC		
EXPOSURE	• BRIGHTNESS • SENSE UP	SHUTTER	• AGC
DWDR	• OFF	• ON	
WHITE BALANCE	• ATW1	• PUSH	MANUAL
BACKLIGHT	• OFF	• BLC	• HLC
SMART 3DNR	• OFF	• ON	
DAY&NIGHT	• AUTO • EXTERN	• COLOR	• B/W
SPECIAL	• IMAGE ADJ. • PRIVACY	CAM TITLE	MOTION
EXIT	• SAVE	• INITIAL	RESTORE



ACCESSING THE OSD

Settings can be adjusted using the built-in joystick, button pad, optional CE-RE-MOTE or the optional UTC (Up The Coax) REMOTE.





Joystick use: Press directly down on the joystick to activate the OSD menu. The OSD joystick is either located on the camera board, or in-line(on the cable).



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



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



OSD MENU SETTINGS

1. Press & Hold the SET button (for 3 seconds) to access the OSD Menu.

PRESS AND HOLD FOR OSD MENU

2. Scroll through menu items from the list available by using the UP and DOWN buttons.

3. Use the LEFT and RIGHT buttons to change a setting.

4. When finished, select 'EXIT' and select SAVE, INITIAL or RESTORE.

 SAVE: Saves current settings and Exits the OSD Menu.

 INITIAL: Resets all settings to Default settings.

 RESTORE: Reverts settings to previously saved settings.

CLINTO	NNX4
▶1. LENS	DC 🕈
2. EXPOSURE	ل ہ
3. DWDR	OFF
4. WHITE BAL	ATW1
5. BACKLIGHT	OFF
6. SMART 3DNR	MIDDLE
7. DAY&NIGHT	AUTO ↓ <mark>o</mark>
8. SPECIAL	ل ه
9. EXIT	SAVE ↓
When an arrow	
is present, press	
the SET button	
to enter the sub	

menu.

🔨 Notes

- 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.
- · An item with the " - " icon is unavailable due to function settings.
- All menu items have a 'RETURN' option. With this function you have the option to 'RET' (RETURN), which takes you back to the previous menu screen.

LENS

This function is used to adjust the brightness of the screen. 'DC' or 'MANUAL' will automatically be selected, depending on the iris of the camera lens; automatic or manual.

CLINTON 1	NX4
▶1. LENS	DC 🕈
2. EXPOSURE	
3. DWDR	OFF
4. WHITE BAL	ATW1
5. BACKLIGHT	OFF
6. SMART 3DNR	MIDDLE
7. DAY&NIGHT	AUTO ↓
8. SPECIAL	له
9. EXIT	SAVE ↓

Press SET to choose from the sub menu items listed below.

- BRIGHTNESS
- ► IRIS SPEED
- Adjust to achieve the optimum level of brightness.
 Adjusts the Iris control speed of the DC lens. If the control speed is too slow or fast, use this menu to adjust the speed.





 Some lenses may not work properly, depending on the setting of the BRIGHTNESS LEVEL.

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.

CLINTON NX4	
1. LENS	DC ↓
2. EXPOSURE	ل پ
3. DWDR	OFF
4. WHITE BAL	ATW
5. BACKLIGHT	OFF
6. SMART 3DNR	MIDDLE
7. DAY&NIGHT	↓ OTUA
8. SPECIAL	
9. EXIT	SAVE ↓

Press SET to choose from the sub menu items listed below.

- BRIGHTNESS : Adjusts the video brightness (1~20).
- ► SHUTTER : Adjust shutter speed (1/60~1/120,000).
- ► AGC (AUTO GAIN CONTROL)
 - The higher the gain level, the brighter the screen, but the higher the noise.
 - Adjustable from 1~20

► SENSE UP

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

Adjustable from OFF / x2~x512



🔨 Notes

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 Note that the higher the level of Sens Up – 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 SENSE-UP.

DWDR (DIGITAL 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.

CLINTON N	X4
1. LENS	DC ↓
2. EXPOSURE	
▶3. DWDR	ON↓
4. WHITE BAL	ATW
5. BACKLIGHT	OFF
6. SMART 3DNR	MIDDLE
7. DAY&NIGHT	AUTO ↓
8. SPECIAL	له
9. EXIT	SAVE ↓

Turn on by using the Left/Right buttons and press SET to change the DWDR level in the sub menu according to the contrast between bright and dark areas.





DWDR ON

DWDR OFF

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).

CLINTON N	X4	9000-10000°K	Rainy
1. LENS	DC ≁	6500-8000°K	Cloudy
2. EXPOSURE	€	5000-6500°K	Partly Cloudy
▶4. WHITE BAL	ATW1	5000-5500°K	- ()- Sunny
5. BACKLIGHT	OFF	4000-5000°K	Fluorescent lamp
6. SMART 3DNR		3000-4000°K	Halogen Jamp
8. SPECIAL	4	2500-3500°K	Tungsten lamp
9. EXIT	SAVE ↓	1000-2000°K	Candlelight

Select one of the following modes using the LEFT and RIGHT buttons.

► ATW1	: Select this to automatically readjust the white balance each time a change in the ambient color temperature is detected.
▶ PUSH	: Select this to find the optimal luminance level for the current environment, point the camera towards a sheet of white paper then press the SET button.
► MANUAL	: Select this to fine-tune White Balance manually. Set White Balance first by using the ATW1 or PUSH mode. Then switch to MANUAL mode, fine-tune the White Balance RED & BLUE values as needed.



🔨 Notes

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 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.

4. WHITE BAL	ATW1
▶5. BACKLIGHT	BLC ↓
6. SMART 3DNR	MIDDLE
7. DAY&NIGHT	AUTO ↓

Select a desired mode using the Left and RIGHT buttons depending on the camera purpose.

BLC (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 the entire image to properly expose the subject in the foreground.



BLC ON

BLC OFF

- LEVEL
- : Adjust the level of the BLC function.
- DISPLAY : If set to ON, the blue outline box will remain ON after exiting the OSD Menu.



To Adjust the BLC Area:

1) Scroll to the portion of the box to adjust.

2) Use the Left or Right buttons to increase or decrease the size/ position.

3) Once you have the desired size/ position of the BLC Area, choose ENTER to apply changes.

BACKLIGHT

► HLC (HIGHLIGHT LIGHT COMPENSATION)

If the scene contains extremely bright light areas such as car headlights, 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

- MODE
 LEVEL
- : Enable to change the operating condition.
- : Adjust the level of the HLC function. The higher the level, the more sensitive the HLC function becomes.

\Lambda Notes

• While using the BLC function, it is possible to have the bright portion of the scene appear overexposed.

\Lambda Notes

- For effective license plate observation, HLC needs minimum illumination and fast shutter speed more than 1/200sec.
- Because there can be a difference in the effectiveness of HLC according to the amount of light area in the screen, optimize the installation angle for the best HLC performance.
- In NIGHT ONLY mode HLC is not active during the daylight or when bright lights are not present at night.

SMART 3DNR

This function reduces background image noise in a low light environment, improving visibility.

CLINTON NX	4
1. LENS	DC 🚽
2. EXPOSURE	ل
3. DWDR	ON↓
4. WHITE BAL	ATW
5. BACKLIGHT	OFF
▶6. SMART 3DNR	MIDDLE
7. DAY&NIGHT	AUTO ↓
8. SPECIAL	
9. EXIT	SAVE ↓

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

SMART 3DNR

OFF / LOW / MIDDLE / HIGH



OFF

LOW

MIDDLE

HIGH

1 0



• 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 but trailing may occur with moving objects.

DAY&NIGHT

This function displays images in color or black and white. This function is helpful with cameras that are not equipped with IR (infrared) LEDs, allowing the camera to adapt to low light conditions.

Select a desired mode using the Left and RIGHT buttons according to the picture display you want.

► COLOR	: The image is always displayed in color. Automatic switching does not occur.
► AUTO	: The mode is switched to 'COLOR' in a normal environment, but switches to 'B/W' mode when ambient illumination is Iow. To setup the switching time for AUTO mode, press the SET button.
► EXT	: This mode is used for cameras that have an external D/N filter, typically IR cameras.
► B/W	: 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.

Notes

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• When using a Video Auto Iris Lens, if you set the lens level too low, automatic switching between COLOR and B/W may not occur.

• For cameras with IR LEDs it is recommended to leave set to EXT. Changing to AUTO can cause the camera to flicker between day & night modes- depending on the lighting conditions.

This function includes features that allow you to change how the image appears on the screen, assigning a name for the camera, as well as adding privacy masks and the option to change the language displayed.

4. WHITE BAL	ATW1
5. BACKLIGHT	OFF
6. SMART 3DNR	MIDDLE
7. DAY&NIGHT	AUTO ↓
▶8. SPECIAL	L
9. EXIT	SAVE ↓

Select a desired mode using the UP and DOWN buttons.

IMAGE ADJ



MONITOR

Change the settings value of video that is appropriate to your monitor.

- LCD : Select this menu item when using a LCD monitor.
- CRT : Select this menu item when using a CRT monitor.

MIRROR

You can reverse/flip the image from the camera on your monitor. - MIRROR : Vertical flip.



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IMAGE ADJ continued...

SHADING

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

DEFECT

Compensation for defects or dead pixels that may occur over time, during low light conditions. Press & Hold the SET/Enter button for 3 seconds to begin Defect detection. Once the process is finished it will revert to the main OSD menu screen.

- THRESHOLD : Compensates for defects while AGC is activated. If set too high, further image noise may occur.

SHARPNESS

Increase or decrease the clarity of the image.

DEFOG

Images in extraordinary environments such as fog or rain or in a very strong luminous intensity have DR (dynamic range) lower than ordinary images. This function is a contrast enhancement, which is used to overcome such shortcomings.

LANGUAGE

Select the desired menu language.



[•] If you increase the SHARPNESS level too high, the picture may become distorted or noise may appear.

CAM TITLE

Use this feature if you want to quickly identify a given image by assigning a title that will display on screen.





- Select CAM TITLE, then use the LEFT/RIGHT button to set it to 'ON' and then press the SET button.
- 2) Use the UP or DOWN buttons to change the letter/number.
- 3) Use the LEFT or RIGHT buttons to move the cursor (yellow arrow above current position).
- 4) When the title is finished, press the SET button to return to the SPECIAL menu.



- When the CAM TITLE menu is 'OFF', no title will be displayed on the monitor even if you enter one.
- · Limited to 8 characters (numbers and letters only).

MOTION

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When motion is detected a yellow 'M' will appear in the top right corner of the screen.



- AREA : Select up to 4 areas.
- AREA D.S.P. : Turn 'ON' or 'OFF' the motion area.
- VALUE : The higher the value, the more sensitivity the motion detection will be.
- TOP : Move the top of the selected area.
- BOTTOM : Move the bottom of the selected area.
- LEFT : Move the left of the selected area.
- **RIGHT** : Move the right of the selected area.

PRIVACY

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.



- AREA : Select up to 8 areas.
- AREA D.S.P. : Turn 'ON' or 'OFF' the privacy mask area.
- COLOR : Select 1 of 12 available colors.
- тор
- воттом
- LEFT • RIGHT
- : Move the top of the selected area.
 : Move the bottom of the selected area.
 : Move the left of the selected area.
- : Move the right of the selected area.

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EXIT

Once you have the desired settings made you can either save/not save the changes or reset the camera to the factory defaults if you need to start over.

CLINTON NX4	
1. LENS	DC↓
2. EXPOSURE	ل ہ
3. DWDR	OFF
4. WHITE BAL	ATW1
5. BACKLIGHT	OFF
6. SMART 3DNR	HIGH
7. DAY&NIGHT	AUTO ↓
8. SPECIAL	
▶9. EXIT	SAVE ↓

- SAVE : Save the current settings and exit the OSD menu.
- INITIAL : Resets the camera settings to the factory defaults.
- **RESTORE** : Reverts settings to previously saved settings.

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. Check the Brightness of Auto Iris lens.
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. If you have an intermediate device, set the 75Ω/Hi-z properly, and check the terminals. Adjust the brightness level of the Auto Iris lens.
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 DETECTION function is not working.	 Check if 'MOTION DETECTION' mode is turned on. Check if the MD VALUE is too low. Check the setting of the MD AREA.
Colors are not quite right.	• Check the 'WHITE BAL' setting.
The screen is flickering.	 Check if the camera is facing directly into sunlight or fluorescent light.
COLOR (DAY/NIGHT) mode is not working.	 Check if the AGC menu is set to the OFF position.
SENS-UP function is not working.	 Check if the AGC menu is set to the OFF position. Check the value of SENS-UP function.

CONTACT



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