

clintonelectronics



ON SCREEN DISPLAY **User Manual**

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

Sales: 1-800-447-3306 Support: 1-800-549-6393 www.clintonelectronics.com

IMPORTANT SAFETY INSTRUCTIONS

- 1.** Read these instructions.
- 2.** Keep these instructions.
- 3.** 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, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 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.

PORTABLE CART WARNING





CAUTION



RISK OF ELECTRIC SHOCK, DO NOT DISASSEMBLE

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 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°F - 122°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
ACCESSING THE OSD	02
OSD MENU SETTINGS	03
LENS	04
EXPOSURE	05
WHITE BALANCE	07
BACKLIGHT	09
DAY & NIGHT	11
DPC (Dead Pixel Compensation)	13
SPECIAL	14
EXIT	18
TROUBLESHOOTING	19

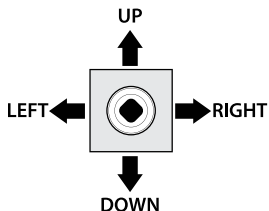
OSD (On Screen Display) MENU

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.

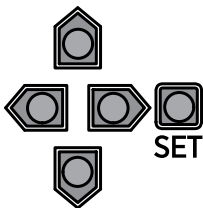
LENS	• BRIGHTNESS	• IRIS SPEED	
EXPOSURE	• SHUTTER	• AGC	• DWDR
WHITE BALANCE	• ATW1 • ANTI CRL	• AWC→SET	• MANUAL
BACKLIGHT	• OFF	• BLC	• HLC
DAY&NIGHT	• AUTO • EXT	• COLOR	• B/W
DPC	• DEAD PIXEL COMPENSATION		
SPECIAL	• CAM TITLE • PARK LINE • LANGUAGE	• MOTION • IMAGE ADJ.	• PRIVACY • COMM ADJ
EXIT	• SAVE	• RESET	

ACCESSING THE OSD

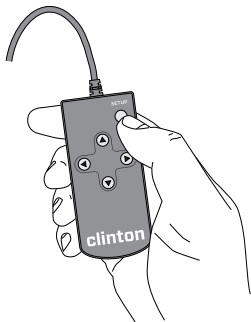
Settings can be adjusted using the built-in joystick, button pad, or optional CE-REMOTE.



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

1. Press the SET button.

- Settings can only be changed when the OSD menu is displayed on the monitor.

Select the function using the UP or DOWN buttons.

SETUP		CLINTON NX3
▶ LENS	DC	↓
EXPOSURE		↓
WHITE BAL.	ATW1	
BACKLIGHT	OFF	
DAY&NIGHT	AUTO	↓
DPC		↓
SPECIAL		↓
EXIT	SAVE	↓


When an arrow is present, press the SET button to enter the sub menu.

Change the setting using the LEFT or RIGHT buttons.

- 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 press the SET button to save settings.**



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.
- After approximately 2-3 minutes of no activity the OSD menu will disappear. Any changes will be saved automatically.
- 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. Or you have to the option to 'SAVE&END', which saves current settings and exits out of the OSD Menu.

LENS

SETUP		CLINTON NX3
▶LENS	DC ↓	
EXPOSURE	↓	
WHITE BAL.	ATW1	
BACKLIGHT	OFF	
DAY&NIGHT	AUTO ↓	
DPC	↓	
SPECIAL	↓	
EXIT	SAVE ↓	

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

- ▶ BRIGHTNESS : Adjust to achieve the optimum level of brightness.
- ▶ IRIS SPEED : 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.

EXPOSURE

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

SETUP		CLINTON NX3
LENS		DC ↓
▶EXPOSURE		↓
WHITE BAL.		ATW1
BACKLIGHT		OFF
DAY&NIGHT		AUTO ↓
DPC		↓
SPECIAL		↓
EXIT		SAVE ↓

Scroll to choose from the sub menu items listed below.

EXPOSURE		CLINTON NX3
▶SHUTTER		1 / 60
AGC		- - - -
DWDR		OFF
RETURN		RET

- ▶ **SHUTTER** : Adjusts the video sensor shutter.
- **AUTO** : Select this to control the shutter speed automatically, depending on the ambient illumination of the subject.
 - **FLK** : Select this when you experience picture flicker, which can happen when there is a clash with the frequency of the installed lighting.
 - **1/60-1/100,000** : Manually select a shutter speed.



Notes

- If color rolling occurs, change the SHUTTER setting to 'FLK'.

EXPOSURE

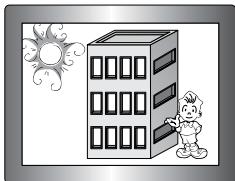
► AGC (AUTO GAIN CONTROL)

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

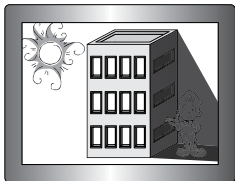
- - - - - : Settings are automatic, not adjustable.
- **LOW** : 28dB of Gain is applied.
- **MIDDLE** : 32dB of Gain is applied.
- **HIGH** : 36dB of Gain is applied.

► 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.

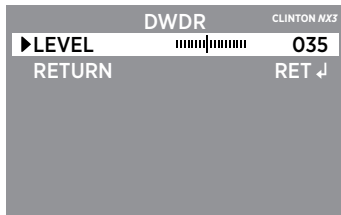


DWDR ON



DWDR OFF

- **LEVEL** : Adjust the sensitivity of DWDR, the higher the value the more sensitive the DWDR.



Notes

- AGC is not adjustable when Day & Night is set to AUTO. (- - - -)

WHITE BALANCE

This function allows the ability to adjust color temperature.

SETUP		CLINTON NX3
LENS		DC ↓
EXPOSURE		↓
▶ WHITE BAL.		ATW1
BACKLIGHT		OFF
DAY&NIGHT		AUTO ↓
DPC		↓
SPECIAL		↓
EXIT		SAVE ↓

Select one of the 4 following modes using the LEFT and RIGHT buttons.

▶ **ATW1**

Preprogrammed auto-tracking white balance settings. Select this when color temperature is between 1,800°K and 10,500°K.

▶ **AWC→SET**

Select this to find the optimal luminance level for the current environment. Point the camera towards a sheet of white paper and press the SET button. The camera will automatically reproduce colors based on the color you presented as a baseline.



Notes

- If the environment, and/or light source changes, the AWC→SET will require re-adjustment.

▶ **MANUAL**

Select a preprogrammed option of: **INDOOR**, **OUTDOOR** or **MANUAL**, depending on the color temperature of the environment.









- **INDOOR** : Select this when the color temperature is between 4,500°K and 8,500°K
- **OUTDOOR** : Select this when the color temperature is between 1,700°K and 11,000°K
- **MANUAL** : Select to manually adjust the BLUE and RED color levels.

WHITE BALANCE

► ANTI CRL

Select to reduce color rolling when/if installed under fluorescent lights.

Illumination is generally referred to as color temperature, which is represented in a measurement of kelvin (K).

9000-10000°K		Rainy	
6500-8000°K		Cloudy	
5000-6500°K		Partly Cloudy	
5000-5500°K		Sunny	
4000-5000°K		Fluorescent lamp	
3000-4000°K		Halogen lamp	
2500-3500°K		Tungsten lamp	
1000-2000°K		Candlelight	



Notes

- White Balance may not work properly under the following conditions. In this case select the AWC mode.
1. 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.
 3. 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.

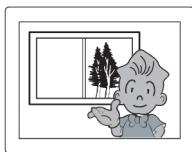
SETUP		CLINTON NX3
LENS		DC ↓
EXPOSURE		↓
WHITE BAL.		ATW1
▶BACKLIGHT		BLC ↓
DAY&NIGHT		AUTO ↓
DPC		↓
SPECIAL		↓
EXIT		SAVE ↓

Select a desired mode using the Left and RIGHT buttons depending on the camera's use.

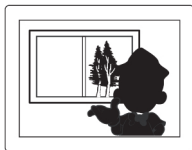
▶ **OFF** : Not being used

▶ **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

BLC		AREA1
▶AREA SEL.		
AREA STATE		ON
GAIN		095
HEIGHT		005
WIDTH		004
LEFT/RIGHT		006
TOP/BOTTOM		005
RETURN		RET ↓

BACKLIGHT

► BLC (BACK LIGHT COMPENSATION) continued...

- **AREA SEL** : Choose 1 or 2 BLC areas.
- **AREA STATE** : Turn 'ON' or 'OFF' the selected BLC area.
- **GAIN** : Adjust the amount of gain to be applied.
- **HEIGHT** : Adjust the height of the BLC area.
- **WIDTH** : Adjust the width of the BLC area.
- **LEFT/RIGHT** : Position the BLC area on the screen.
- **TOP/BOTTOM** : Position the BLC area on the screen.

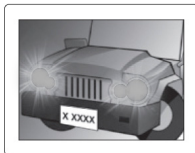


Notes

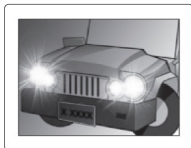
- While using the BLC function, it is possible to have the bright portion of the scene appear overexposed.

► HLC (HIGH 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

- **LEVEL** : Adjust the amount of gain to be applied to the HLC function.
- **MODE** : Select to determine when HLC will be active: 'ALL DAY' or 'NIGHT ONLY'



Notes

- For effective license plate observation, it 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.

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.

LENS	DC ↓
EXPOSURE	↓
WHITE BAL.	ATW1
BACKLIGHT	OFF
▶ DAY&NIGHT	AUTO ↓
DPC	↓
SPECIAL	↓
EXIT	SAVE ↓

Select a desired mode using the Left and 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. To setup the switching time for AUTO mode, press the SET button.

D&N AUTO		CLINTON NX3
▶ D→N LEVEL		164
D→N DELAY		10 SEC
N→D LEVEL		154
N→D DELAY		10 SEC
RETURN		RET ↓

- **D→N/N→D LEVEL** :Set the light level that triggers automatic switching from day to night / night to day.
- **D→N/N→D DELAY** :Sets a delay time before the switch is made from day to night/night to day. This can be useful if the camera is placed in an area that is subject to shadows or intermittent light level changes.



Notes

- When 'AUTO' is selected, the AGC feature is automatically disabled.
- If the camera is switching back and forth between modes all the time (thrashing), increase the 'DELAY'.

DAY&NIGHT

► **EXT**

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

► **COLOR**

The image is always displayed in color.

► **B/W**

The image is always displayed in black and white. Pressing the SET button will enter the sub-menu.






D&N B/W		CLINTON NX3
BURST		ON
► IR SMART		ON ↓
IR LEVEL		LOW
RETURN		RET ↓

• **BURST**

: Alters the color burst information passed to the video monitor. Since this is B/W mode, it doesn't effect color but can effect gain.

• **IR SMART**

: The IR SMART menu lets you select an area on screen (defined by the slidebars: HEIGHT, WIDTH, LEFT/RIGHT and TOP/BOTTOM) where IR light can be detected. The IR GAIN sliderbar controls signal gain in the area you define.

IR SMART		
► IR GAIN		090
HEIGHT		006
WIDTH		006
LEFT/RIGHT		004
TOP/BOTTOM		004
RETURN		RET ↓

• **IR LEVEL**

: Adjust the IR sensitivity.

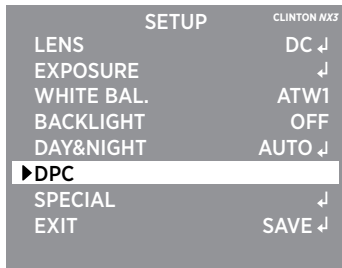


Notes

- If your monitor is showing a poor image and you are using long runs of cable, setting 'BURST' to ON may improve the image quality.

DPC (DEAD PIXEL COMPENSATION)

Sometimes, over time, white spots (dead pixels) will be shown on the screen. These dead pixels are especially noticeable during low-light conditions and will be recorded together with the normal image. This does not disable a camera but may make the image a little annoying to look at. DPC, when enabled, finds dead pixels and removes them, providing clean images.



Press SET to start the DPC. Follow the on-screen instructions and cover the lens so little to no light passes through. The screen will flash momentarily (Processing Now will be displayed).

COVER THE LENS
THEN
PRESS ENTER KEY

PROCESSING NOW...

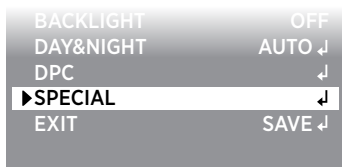


Notes

- Dead pixels are very rare and almost never occur, and when they do it usually takes years before they develop. Unfortunately there is no way to predict their occurrence, but when (and if) they do it's very un-economical to replace a good camera because a tiny pixel is locked permanently white, for instance. Most users will never use this feature.

SPECIAL

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



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

► CAM TITLE

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



Camera Title



- 1) Select CAM TITLE, then use the LEFT/RIGHT button to set it to 'ON' and then press the SET button.
- 2) Use the 4 direction buttons to move to a desired letter and select the letter by pressing the SET button. Repeat this to enter multiple letters. You can enter up to 15 letters.
- 3) Enter a title, move the cursor to 'POS' and press the SET button. The entered title appears on the screen. Select the position to display the title on the screen by using the 4 direction buttons and press the SET button.
- 4) When position is determined, select 'END' and press the SET button to return to the SPECIAL menu.

SPECIAL

► CAM TITLE continued...



Notes

- When the CAM TITLE menu is 'OFF', no title will be displayed on the monitor even if you enter one.
- Regardless of the language selected, only English letters are available.
- If you move the cursor to CLR and press the SET button, all the letters are deleted.
- To edit a letter move the cursor to the bottom left arrow and press the SET button. Next move the cursor over the letter to be edited, then move the cursor to the letter to be inserted and then press the SET button.

► MOTION

Monitor activity more efficiently with this feature by means of highlighting moving objects.

MOTION		
► AREA SEL.		AREA1
AREA STATE		ON
HEIGHT		004
WIDTH		004
LEFT/RIGHT		002
TOP/BOTTOM		002
DEGREE		010
VIEW		ON
RETURN		RET ↵

- **AREA SEL** : Choose up to 4 areas to monitor motion.
- **AREA STATE** : Turn 'ON' or 'OFF' the selected motion area. When 'ON' an icon appears at the lower left corner of the monitor.
- **HEIGHT/WIDTH** : Adjust the height/width of the motion area.
- **LEFT/RIGHT TOP/BOTTOM** : Position the motion area on the screen.
- **DEGREE** : Adjusts the motion sensitivity.
- **VIEW** : Turn 'ON' to highlight moving objects in pink boxes.

SPECIAL

► PRIVACY

Apply a mask to an area you want to hide.

PRIVACY			
► AREA SEL.			AREA1
AREA STATE			ON
HEIGHT			032
WIDTH			032
LEFT/RIGHT			020
TOP/BOTTOM			016
COLOR			000
RETURN			RET ↓

- **AREA SEL** : Select up to 8 areas to apply a privacy mask to.
- **AREA STATE** : Turn 'ON' or 'OFF' the selected privacy area.
- **HEIGHT/WIDTH** : Adjust the height/width of the privacy area.
- **LEFT/RIGHT TOP/BOTTOM** : Position the privacy area on the screen.
- **COLOR** : Select 1 of 15 different colors.

► PARK. LINE

Colored lines are displayed on screen for easy identification of borders and limits. Useful in parking facilities and ranging of objects.

PARK LINE		
► LT		075
LB		029
RT		109
RB		170
F		013
N		058
T		009
RET ↓		

- **LT/LB/RT/RB** : Left Top/Left Bottom/Right Top/Right Bottom.
Determines the top and bottom positions for the lines.
- **F /N/T** : Move the F (Far)/N (Near) ends of the lines. Adjust the T (Thickness) of the lines.

SPECIAL

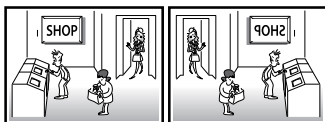
► IMAGE ADJ.

Select to adjust a number of video image adjustments like CONTRAST and SHARPNESS.

IMAGE ADJ.		CLINTON NX3
► LENS SHAD.		OFF
2DNR		OFF
MIRROR		OFF
FONT COLOR		↓
CONTRAST		128
SHARPNESS		031
DISPLAY		CRT ↓
NEG. IMAGE		OFF
RETURN		RET ↓

- **LENS SHAD.** : Select to adjust for smoke-tinted domes or image vignetting caused by lens limitations.
- **2DNR** : 2-dimension dynamic noise reduction, used to reduce background image noise in low-light areas.
- **MIRROR** : Flips the image on the horizontal plane.

MIRROR OFF



MIRROR ON

- **FONT COLOR** : Select to adjust the font color of the OSD menu selections. Choose 1 of 15 colors.
- **CONTRAST** : Adjust the difference in color and light between parts of the image.
- **SHARPNESS** : Increase or decrease the clarity of the image.



Notes

- Too much or too little CONTRAST will result in the image either being too bright or too dark.
- By increasing the SHARPNESS level too high, the picture may become distorted or noise may appear.

SPECIAL

► IMAGE ADJ. continued...

- **DISPLAY** : Select the type of monitor being used, either CRT or LCD. Each have a sub-menu with options to tailor video output. Choose USER to optimize the image on the screen.
- **NEG. IMAGE** : Invert the colors shown on the screen.

► COMM ADJ.

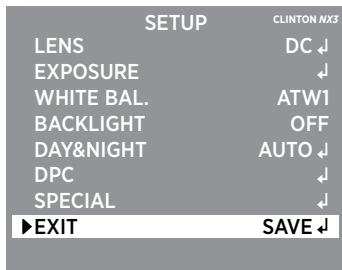
RS485 communication settings. *RS485 functionality may not be available on all cameras.

► LANGUAGE

Choose either English or Chinese

EXIT

Once you have the desired settings made, select to exit from the OSD menu.



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

- **SAVE** : Saves current settings and closes menu.
- **RESET** : Current settings are discarded and reverts all settings to the default value.

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.	<ul style="list-style-type: none">• Check the power connection.• Check the video signal line connection.• Adjust the brightness and shutter settings in the 'EXPOSURE' menu.
The video image is not clear.	<ul style="list-style-type: none">• 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.	<ul style="list-style-type: none">• 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 and shutter settings in the 'EXPOSURE' menu.
There is a problem with the camera operation. The camera surface is too hot and black stripes appear on the screen.	<ul style="list-style-type: none">• Check if an appropriate power source to the camera complies with the manufacturer's standard requirement, or if the voltage keeps changing.
The MOTION function is not working.	<ul style="list-style-type: none">• Check if 'MOTION' mode is turned on.• Check the settings in the 'MOTION' menu.
Colors are not quite right.	<ul style="list-style-type: none">• Check the 'WHITE BAL' setting.
The screen is flickering.	<ul style="list-style-type: none">• Check if the camera is facing directly into sunlight or fluorescent light.
COLOR (DAY/NIGHT) mode is not working.	<ul style="list-style-type: none">• Check if the AGC menu is set to the OFF position.

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



The material in this document is subject to change without notice. While reasonable efforts have been made to assure the accuracy of this document, Clinton Electronics and its employees assume no liability resulting from errors or omissions in this document, or from the use of the information contained herein. Clinton Electronics reserves the right to make changes or revisions in the product design or the product manual without reservation and without obligation to notify any person of such revisions and changes.

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

Sales: 1-800-447-3306 Support: 1-800-549-6393 www.clintonelectronics.com

ver: 12.05.18