



CLINTON Electronics



Color Bullet Camera

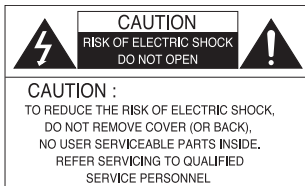
CE-8380

CLINTON Electronics

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www.clintonelectronics.com



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.

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.

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 this appliance to rain or moisture.

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

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Warning

The camera requires periodic inspection.

Contact an authorised technician to carry out the inspection.

Stop using your camera when 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 dis-assemble 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.

Precautions

Do not install the camera in extreme temperature conditions.



Only use the camera under conditions where temperatures are between 14°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 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 drop the camera or subject it to physical shocks.



It can cause malfunctions to occur.

Never keep the camera pointed directly at strong light.



It can damage the CCD.

Do not expose the camera to radioactivity.



If exposed to radioactivity the CCD will fail.



Notes

- If the camera is exposed to spotlight or object reflecting strong light, smear or blooming may occur.
- Check that the power satisfies the normal specification before connecting the camera.

Components

1. Camera



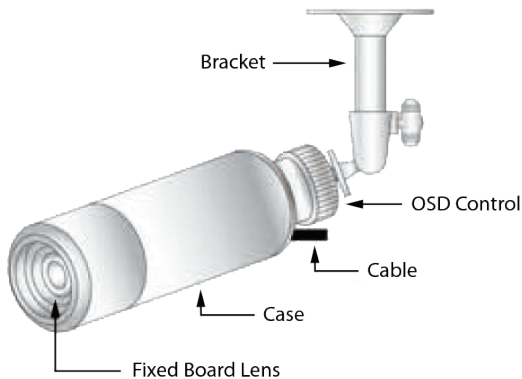
2. Mounting Screws



3. Instruction Guide



Installation



1. Bracket & Camera Mounting

- Affix the bracket to the mounting surface.
- Use the supplied screws to attach to the mounting surface using the pre-drilled holes in the bracket.

2. Power Connector & Monitor Impedance

- Use ONLY a DC12V (120mA or 1A regulated PSU).
- To avoid fire or shock hazards, always use a CE marked PSU.
- Set the monitor impedance switch to 75Ω. Check the impedance switch if the screen is blurred.

On Screen Display (OSD) Menu

- On Screen Display (OSD) Menu

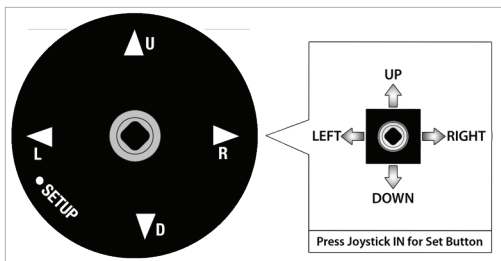
Camera functions and settings can be adjusted or changed by activating the OSD menu. When the OSD menu is activated text will display on the monitor. The user can then move the cursor to the desired function to change the setting.

Setup Menu

LENS	• MANUAL	• DC / VIDEO
SHUTTER	• FIXED	• AUTO • FLK
WHITE BALANCE	• ATW	• AWB • FIXED • MANUAL
BACKLIGHT	• BLC AREA	• BLC RATIO
AGC	• AGC CONTROL	
ADJUST	• CONTRAST • CB-GAIN	• CAMERA ID • CR-GAIN
FUNCTION	• RETURN • DAY / NIGHT • MOTION • GAMMA • RESET	• CAMERA ID • MIRROR • PRIVACY • LANGUAGE
EXIT		

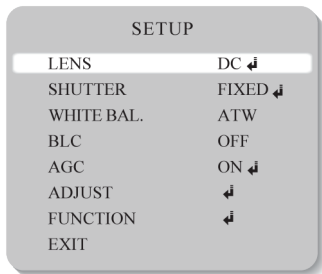
Accessing the OSD Menu Settings

Unscrew the back of the camera to use the joystick. Settings can be adjusted by using the OSD joystick on the inside of the camera.



1. Press directly down on the joystick to activate the OSD menu.

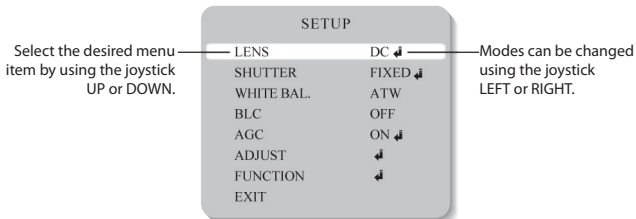
- Settings can now be made. The SETUP menu is displayed on the monitor.



2. Select the menu item from the list available by moving the joystick UP or DOWN.

- Functions are selected using the joystick up or down.
- The selected position is displayed in blue.

Accessing the OSD Menu Settings continued



3. Move the joystick LEFT or RIGHT if you wish to change the Menu selection.

- When the joystick is moved LEFT or RIGHT, available values and modes are displayed in order. Move the joystick until you get to the mode you wish to select.

4. Select 'EXIT' and then press the joystick SET button to exit the set up Menu.



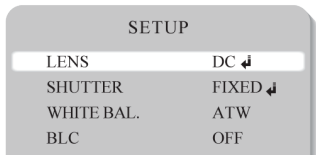
Notes

- If ↵ appears at the mode selected, it means that there is a sub-menu which can be selected by pressing the joystick SET button.

LENS (selection)

This function is used to adjust the brightness of the screen.

1. When the SETUP menu is displayed on the screen, position the cursor to point to 'LENS' by using the joystick UP or DOWN.
2. Select the type of the lens setting to use by moving the joystick LEFT or RIGHT.



LENS (selection) continued

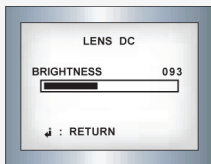
● **DC / VIDEO** : Auto Iris Lens selection



Notes

When using an auto iris lens, the setting of the auto iris lens selection switch, located on the back of the camera, must be on DC or VIDEO depending on the type of the lens being used.

- The brightness of the screen can be adjusted in DC mode. The brightness can be adjusted within the range of 0 ~ 255. The optimum level of brightness can be achieved using this adjustment.



● **MANUAL** : Manual Lens selection

3. Press the joystick SET button to return to the previous menu.

SHUTTER (condition and speed control)

Auto or manual control can be selected.

1. When the SETUP menu is on the screen, position the cursor to point to 'SHUTTER' by moving the joystick UP or DOWN.

2. Select the shutter mode by moving the joystick LEFT or RIGHT.

- **AUTO:** Automatic control of the shutter speed is enabled.
When AUTO mode is on, the shutter speed is controlled automatically according to the brightness of the scene.
- **FLK:** Select 'FLK' mode when flickering occurs on the screen due to an imbalance between illumination and frequency.
NTSC Model: 1/100, PAL Model: 1/120
- **FIXED:** The shutter speed can be controlled manually.
- **MANUAL mode (256 steps):**
There are 256 pre-defined electronic shutter speeds in manual mode available for selection; set according to environment conditions.

SETUP	
LENS	MANUAL
SHUTTER	AUTO ↕
WHITE BAL.	ATW
BLC	OFF
AGC	ON ↕
ADJUST	↕
FUNCTION	↕
EXIT	

3. Select 'FIXED' mode for manual shutter speed adjustment.

- Selectable speeds are from '1/60' to '1/120,000' sec (NTSC) and '1/50' to '1/120,000' sec (PAL).

4. Press the joystick SET button when the settings are completed.

WHITE BALANCE control

The screen colors can be adjusted by using the WHITE BALANCE function.

1. **Position the cursor to point to 'WHITE BAL' on the SETUP menu by moving the joystick UP or DOWN.**
2. **Select the mode you wish to adjust by moving the joystick LEFT or RIGHT.**

SETUP	
LENS	MANUAL
SHUTTER	FIXED ↵
WHITE BAL.	ATW
BLC	OFF

* Select one of the 4 modes below.

- **ATW (Auto Tracking White Balance):** This mode can be used within the color temperature range 1,800°K ~ 10,500°K (Ex. fluorescent light, outdoor, sodium vapor lamp, etc.).
- **AWB (Automatic White Balance):** Press the joystick SET button while the camera is directed at a piece of white paper to obtain the optimum state under current illumination. If the environment, including the light source changes, the white balance will need to be adjusted again.
- **AWB FIXED optimized at 2100°K:**
 - MODE1 : 2680°K (No light source)
 - MODE2 : 3200°K
 - MODE3 : 5500°K (Florescent light source)
 - MODE4 : 5100°K
- **MANUAL:** The manual adjustment mode enables finer adjustment. Select ATW or AWB first, then change to manual adjustment mode and press the joystick SET button. Set the appropriate color temperature, then increase or decrease the red and blue color values and monitor the color changes of the object.

WHITE BALANCE control continued



Notes

Under the following conditions the WHITE BALANCE function may not operate properly. In such cases, select the AWB mode.

1. When the object's surroundings have a very high color temperature (Ex. a clear sky and sunset).
2. When the object's surroundings are dark.
3. If the camera directly faces a fluorescent light or is installed in a place where there are considerable changes in illumination, the WHITE BALANCE function may become unstable.

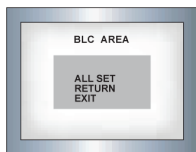
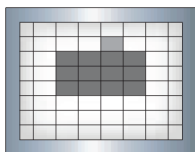
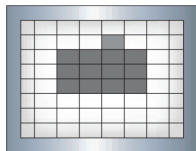
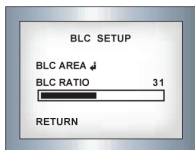
BLC (Back Light Compensation)

When there is a strong backlight behind the object, clear images of the background as well as the object can still be obtained by using the BACKLIGHT function.

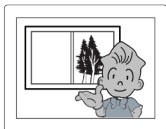
1. **Position the cursor to point to 'BLC' on the SETUP menu by moving the joystick UP or DOWN.**
2. **Select the value required by moving the joystick LEFT or RIGHT.**
3. **Press the joystick SET button to enter the BLC AREA and BLC RATIO menus.**
4. **The BLC Area contains a grid of 64 squares where BLC can be applied.**
5. **The BLC RATIO can now be adjusted (64 steps); a higher value leads to a clearer image.**

SETUP	
LENS	MANUAL
SHUTTER	FLK
WHITE BAL.	ATW
BLC	OFF
AGC	ON ↕
ADJUST	↕
FUNCTION	↕
EXIT	

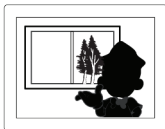
BLC (Back Light Compensation) continued



BACKLIGHT ON

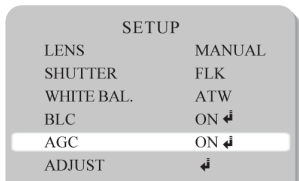


BACKLIGHT OFF

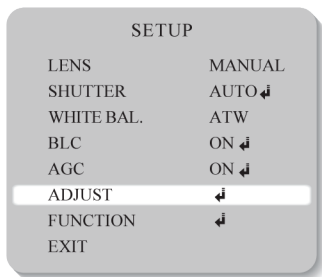


AGC (Auto Gain Control)

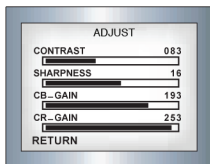
1. Position the cursor to point to 'AGC' on the SETUP menu by moving the joystick UP or DOWN.
2. Select the value required by moving the joystick LEFT or RIGHT. As the level of gain increases, the screen gets brighter but the level of noise will also increase. (256 steps)



ADJUST





- **Contrast:** The image contrast can be adjusted by moving the joystick left or right. (256 steps)
- **Sharpness:** The sharpness of the image can be adjusted by moving the joystick left or right. (32 steps)
- **CB-Gain:** The blue color can be increased or decreased by moving the joystick left or right. (256 steps)
- **CR-Gain:** The red color can be increased or decreased by moving the joystick left or right. (256 steps)



FUNCTION

1. Position the cursor to point to 'FUNCTION' on the SETUP menu by moving the joystick UP or DOWN.
2. Select the mode required by moving the joystick LEFT or RIGHT.



FUNCTION	
RETURN	
CAMERA ID	ON 
DAY NIGHT	COLOR
MIRROR	OFF
MOTION	OFF
PRIVACY	OFF
GAMMA	0 . 45
LANGUAGE	ENGLISH
RESET	

- **CAMERA ID:** If an ID is input, this Camera ID appears on the monitor and recorded footage.
 - 1) Position the cursor to point to 'CAMERA ID' by moving the joystick UP or DOWN.
 - 2) Select 'ON' by moving the joystick LEFT or RIGHT.



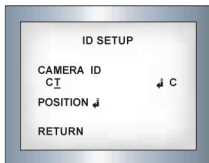
Notes

- If 'OFF' is selected, the ID does not appear on the monitor even if it has been input.

FUNCTION	
RETURN	
CAMERA ID	ON 
DAY NIGHT	COLOR
MIRROR	OFF
MOTION	OFF
PRIVACY	OFF
GAMMA	0 . 45
LANGUAGE	ENGLISH
RESET	

● CAMERA ID continued

3) Press the joystick SET button.



4) Up to 15 characters can be used for the Camera ID.

- Move the cursor to a position and choose a character by moving the joystick UP or DOWN.
- Move the cursor to $\leftarrow \downarrow$ symbol and press SET to finish the ID process.
- Move the cursor to 'C' Letter and press SET to delete the selected letter.
- Select from the alphabet, numbers (0 ~ 9) or 27 special symbols.
- Lock in the characters by using the joystick SET button at $\leftarrow \downarrow$ position.
- Repeat the above steps until the ID is complete.

5) User can select a position to display the Camera ID.



Notes

• If the wrong name has been input.....

Press the joystick SET button after moving the cursor to CLR and all the letters will be erased. If you want to correct a letter move the cursor to the arrow at the bottom left of the screen and press 'SET'.

Position the cursor above the letter you wish to correct and then move the cursor onto the letter you wish to choose and press the joystick SET button.

● DAY & NIGHT

- AUTO: This camera has a function which automatically changes to the appropriate mode dependant on lighting levels. COLOR mode is selected during daylight and B/W mode at night time.
- COLOR: The color mode is selected as the default, and the camera does not change automatically.
- B/W: Discards the color information and displays in black and white.

● DAY & NIGHT continued

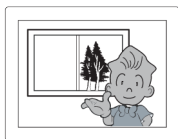


Notes

- When AGC is turned off, COLOR does not operate.

● MIRROR

- ON: Sets a horizontal image inversion.
- OFF: Cancels the inversion.



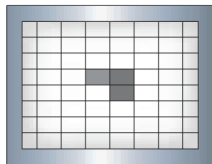
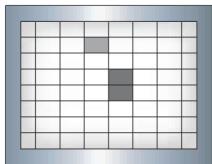
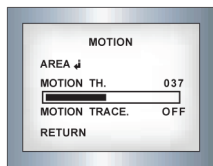
MIRROR ON



MIRROR OFF

● MOTION DETECTION

Users can set the motion detection area just like BLC area setting. The screen is divided into 64 squares. Selected areas are brighter than non-selected areas. The cursor turns red within selected areas, which in turns yellow in non-selected areas. To escape from the area selection press the joystick 'SET' button for 3 seconds and select 'EXIT' to return to the main menu. Users can select all areas using 'ALL SET' and can deselect all areas using 'ALL CLEAR'.



● PRIVACY

Users can set up to 4 areas as privacy zones. 'AREA STATE' allows users to turn the privacy mode on or off within each designated area. The value of 'LEFT' cannot be greater than the value of 'RIGHT'. The value of 'TOP' cannot be greater than the value of 'BOTTOM'. 'COLOR' setting is applied to all 4 privacy areas.

PRIVACY	
AREA SEL	AREA0
AREA STATE	ON
LEFT	<input type="range"/> 137
RIGHT	<input type="range"/> 185
TOP	<input type="range"/> 029
BOTTOM	<input type="range"/> 084
COLOR	<input type="range"/> 008
RETURN	

● GAMMA

Users can change the gamma setting in 0.5 steps, between 0 and 1.0 (20 steps).

FUNCTION	
RETURN	
CAMERA ID	OFF
DAY NIGHT	COLOR
MIRROR	OFF
MOTION	OFF
PRIVACY	OFF
GAMMA	0 . 45
LANGUAGE	ENGLISH
RESET	↓

- **LANGUAGE**

The OSD menu Language is set to English only.

FUNCTION	
RETURN	
CAMERA ID	OFF
DAY NIGHT	COLOR
MIRROR	OFF
MOTION	OFF
PRIVACY	OFF
GAMMA	0 . 45
LANGUAGE	ENGLISH
RESET	↵

- **RESET:** Returns to factory settings.
- **RETURN:** Saves the FUNCTION menu and returns to the SETUP menu.

Exit

Saves all the setting menus and then exits.

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.• Check and make sure that the auto lens switch is correctly set to DC or VIDEO depending on the type of lens attached.
The video image is not clear.	<ul style="list-style-type: none">• Make sure the lens is clean. Clean the lens with a clean lint free cloth or brush.• Adjust the contrast control on the monitor.• Make sure that the screen is not exposed directly to a bright light. Re-position the camera if necessary.• Re-adjust the back focus of the camera.
The screen is dark.	<ul style="list-style-type: none">• Adjust the contrast control of the monitor.• If you have an intermediate device, set the 75Ω/Hi-z correctly, and also check the connections.• Check if an auto iris lens is being used and if necessary adjust the brightness level.
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 is fluctuating. Check for ground loops.

Troubleshooting

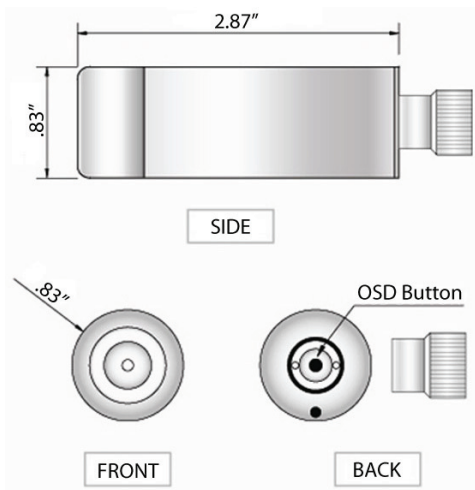
Problem	Solution
The MOTION DETECTION function is not working.	<ul style="list-style-type: none">• Check if 'MOTION DETECTION' mode is turned on.• Check the setting of the MD AREA.
Colors are not quite right.	<ul style="list-style-type: none">• Check the 'WHITE BAL' setting.
The screen is flickering.	<ul style="list-style-type: none">• Check if the camera is facing directly into sunlight or fluorescent light.• Check if an auto iris lens is being used.• Check the connection of the lens connector cable.
COLOR (DAY & NIGHT) mode is not working.	<ul style="list-style-type: none">• Check the Day/Night Mode. Set to Auto or Color.

Specifications

Camera	CE-8380
Image Sensor	1/3 Inch SONY Super HAD CCD
Resolution	540 TV Lines
Effective Pixels	768 (H) x 494 (V)
Scanning System	2:1 Interlace
S/N Ratio	More than 50dB
Sync System	Internal / Line Lock
Scanning Frequency	15.734 KHz (H), 59.94 Hz (V)
Minimum Illumination	0.1 Lux
Shutter Speed	1/60 ~ 1/100,000 sec.
Lens	3.6mm Fixed
Video Output	1.0 Vp-p, 75Ω
Power Consumption	Max. 120mA (DC12V)
Power Requirement	DC12V
Operating Temperature	14°F ~ 122°F
Operating Humidity	Within 95% RH
Dimensions	2.87" (L) x .83" (Dia.)
Weight	0.15 lbs.
OSD Menu	Control with OSD Button Pad
Camera Control & Setup	OSD Buttons
Lens	DC Video
Shutter	Fixed / Manual / FLK
White Balance Control	AWB / Fixed / Manual / ATW
Back Light	ON (Adjustable) / OFF
Gain Control	ON (Adjustable) / OFF
Adjust	Contrast, Sharpness, CB Gain, CR Gain
Special	Camera ID, Day/Night, Mirror, Motion, Privacy, Gamma, Language, Reset

Information in this document is subject to change

Dimensions





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