



GV-LPR CAM 10A Installation Guide V1.6 (Type B Model)

Models

The GV-LPR CAM is available in both EIA and CCIR video format. The camera gives a 570 TVL high-contrast license plate recognition video to the GV-LPR software that identifies license plates. It features 7 high-efficient LEDs for an illumination range of 7 ~ 12 meters / 22.96 ~ 39.37 feet. It also features a weather-sealed, IP66-compliant housing for outdoor use. This installation guide will take you through the functionality and use of the GV-LPR CAM.

Note:

The GV-LPR CAM comes with a free GV-LPR Software, and you need to insert the supplied GV-USB Dongle to the PC to run the software. The free GV-LPR Software is a Trial Edition. It can only capture the license plate images and does not support the license plate recognition function.

Packing List

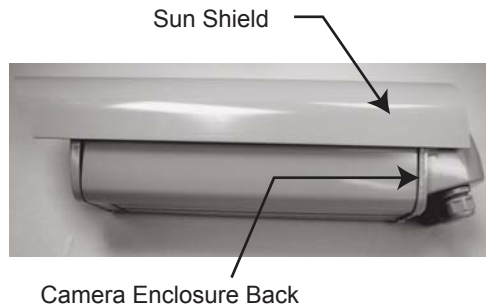
- AC Power Cable (110-125V, 10A) x 1
- Power Adapter (100-240V, 12V/5A) x 1
- Outdoor Mounting Bracket x 1
- GV-LPR Software DVD
- GV-USB Dongle

There are hardware types A, B and C for GV-LPR CAM 10A. Your current device is a type B. You can find this information on your product box.

- ☒ GV-LPR CAM 10A PAL DC12V
- ☒ GV-LPR CAM 10A NTSC DC12V
- ☐ GV-LPR CAM 20A PAL DC12V
- ☐ GV-LPR CAM 20A NTSC DC12V
- ☐ A ☒ B ☐ C

Installing Camera Module

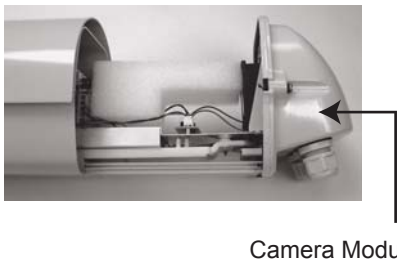
1. Push the sun shield forward to align with the back of camera enclosure.



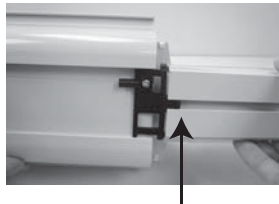
2. Loosen the set screws on the back of the camera enclosure.



3. Pull out the camera module.



4. Slightly lift the camera module and slide it out completely.



Completely slide the camera module out

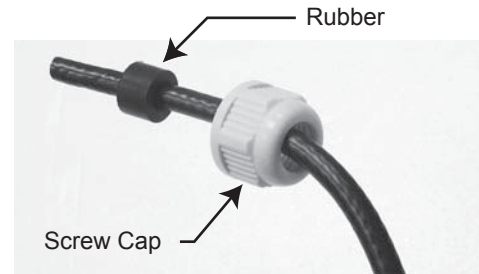
5. Remove the foam.



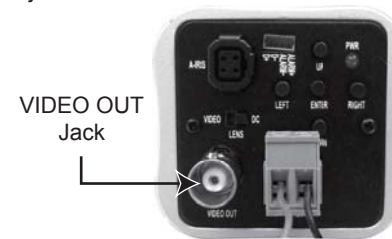
6. Loosen the screw cap on the right.



7. Insert the video cable through the screw cap and the inside rubber of the cap.



8. Attach the video cable to the BNC connector and plug it into the "VIDEO OUT" jack.



9. Adjust the length of the video cable and seal it with the waterproof tape.



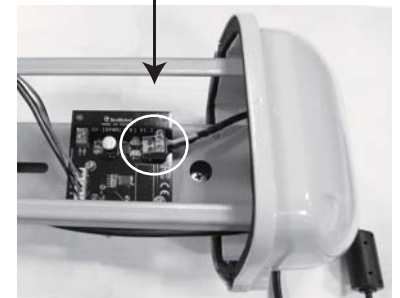
10. Tightly screw the cap.



11. Loosen the screw cap on the left, insert the power cable through the screw cap and the inside rubber.



12. Remove the terminal block. Plug black and white wires of the power cable to the terminal block. Reinsert the terminal block onto the camera. The white wire is required to connect to the positive pin (+) on the camera and the black wire to the negative pin (-).



13. Adjust the length of the cable, seal it with the waterproof tape, and then tightly screw the cap (see Steps 9 and 10 for the pictures).

Adjusting Camera Settings

Overview



No	Function
1	Auto Iris lens connector
2	Video out
3	Power Terminal (It is already connected. Follow Steps 11 to 12 in <i>Installing Camera Module</i> to insert the Power Cable.)
4	Moves down the OSD menu.
5	Moves the focus rightward to select menu options.
6	Power LED
7	Moves up the OSD menu.
8	Enters the OSD menu option and confirms the selection
9	Moves the focus leftward to select menu options.

Shutter Speed

See the lists below for shutter speed settings.

Distance between the object and the camera is 550 cm (18.04 ft).	Distance between the object and the camera is 1100 cm (36.08 ft).
165 SEC	145 SEC
182 SEC	150 SEC
183 (*) SEC	155 SEC
184 SEC	170 SEC
185 SEC	180 SEC
225 SEC	200 SEC

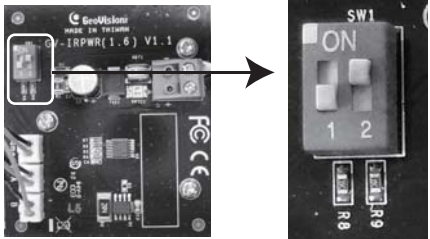
Note:

- 1. The default settings are marked with (*).
- 2. The gray areas in the charts are not recommended for use.

LED Brightness Settings

The GV-LPR CAM models come with 7 LEDs which you can adjust the brightness. You can push up (ON) and down (OFF) the switches for LED brightness settings. See the table below for 4 setting values.

SW (1)	SW (2)	LED Brightness (mA)
ON	ON	410 (Default Setting)
ON	OFF	300
OFF	ON	200
OFF	OFF	100



OSD Menu Options and Functions

Main Menu	Sub Menu	Options	Function	Default
Exposure	Lens	Manual (ELC Level)	Manually adjusts the camera lens.	-
		DC (DC Level)	Press SET to adjust the lens brightness.	17
	E. Shutter	1/60, 1/100FLC, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/100000	Sets the shutter speed for the camera.	1/500
	BLC	ON, OFF	The backlight compensation (BLC) processes the scene for objects to appear clearly when they have strong backlighting. Select ON and press SET LEVEL to adjust the BLC ratio at the center, top, down, left and right of the camera. The higher value, the stronger the compensation.	OFF
	AGC	OFF, 12 DB, 15 DB, 18 DB, 21 DB, 24 DB, 27 DB, 30 DB, 33 DB, 36 DB	Automatically adjusts the camera light sensor to accommodate for different illumination level and produce clear image. The higher the value, the brighter the image.	33 DB
RGB	WB Mode	AWC	Automatically adjusts the white balance under fixed level of illumination.	AWC
		ATW	Dynamically adjusts the color intensity according to illumination level of the scene.	
		Manual	Not functional	
		Pushlock	Select this option to apply the current white balance settings to all the scenes later.	
	R-Y Gain	Not functional		128
	B-Y Gain	Not functional		128
Privacy	Mask 1	ON, OFF	Sets up to 4 solid blocks on the live view to keep sensitive areas invisible. Select ON to enable the mask and select SET WINDOW to define the size of the privacy mask.	OFF
	Mask 2			
	Mask 3			
	Mask 4			
	Color Set	BLACK, GRAY, Color1 ~ Color6	Sets the color of the privacy mask.	BLACK

Main Menu	Sub Menu	Options	Function	Default
Day & Night	Auto	Burst	ON, OFF	Automatically switches between color and black-and-white mode based on the illumination conditions. ● Burst: Enable this function if your LCD monitor only displays in colors. ● Color ► BW: The threshold value at which the camera changes from color to black-and-white. ● BW ► Color: The threshold value at which the camera changes from black-and- white to color. ● Read time: The time taken for the camera to change from color to black-and- white mode or the reverse
		Color ► BW	0 ~ 214	
		BW ► Color	0 ~ 214	
		Read time	3 ~ 12	
	Color		n/a	Sets the scene in colors.
	B & W		n/a	Sets the scene in black and white.
Function	Mirror		ON, OFF	Select ON to reverse the image.
	Sharpness		0 ~ 49	Adjusts the sharpness value.
	Gamma		User, 0.45, 0.6, 1.0	Adjusts the gamma value.
	SLC		ON (0 ~ 50), OFF	Enable and configure the Side Light Compensation (SLC) to compensate scenes with brighter center and darker surroundings.
	HME		ON (0 ~ 50), OFF	Enable and configure the Highlight Masking Exposure (HME) to mask areas of strong illumination and compensates low-light areas within a scene.
	DRC		ON, OFF	Enable the Dynamic Range Compressor (DRC) to reduce the illumination difference within a scene.
Exit	Exit		n/a	Press ENTER to exit the OSD menu.
	Save & Exit		n/a	Press ENTER to save configurations and exit the OSD menu.
	Factory Set		n/a	Press ENTER to load factory default settings.

Installing Camera Enclosure

After the installation of camera module and settings adjustment, you are now ready to install the camera enclosure back.

1. Adjust the lens focus.



2. Lift the camera module.



3. Align the camera module to the camera enclosure and slide it back.



4. Secure the camera enclosure with the screws on both sides.



5. Push the sun shield back.



Main Menu	Sub Menu		Options	Function	Default
Set	Camera ID		0 ~ 254	Names the camera.	1
	Title	Edit	n/a	Sets a title.	-
		Reset	n/a	Edits the title.	-
		Position	Top-L, Top-R, Bot-L, Bot-R	Sets the position of the title.	TOP-L
	DPC Set	White Thr	0 ~ 254	Reduces the defective white pixels.	50
		Black Thr	0 ~ 254	Reduces the defective black pixels.	100
		DPC Level	0 ~ 254	Sets the area of effect pixels used to compensate for the defective ones.	50
	Language	Chinese	n/a	Sets the language of the OSD menu.	English
		English	n/a		
PC Cont.		ON, OFF	Not functional	ON	
Motion	Alarm (ON)	Set window	n/a	Sets the detection zone in blocks. Use the direction buttons and the ENTER button to configure.	Full-screen detection zone
		All set	n/a	Sets the full scene as the detection zone.	-
		All clear	n/a	Clears the previously set detection zone.	-
		Sensiti.	0 ~ 55	Adjusts the alarm sensitivity.	44
		Show Indi	OFF, ICON, TRACE	Sets the type of alarm indicator. ● ICON: shows an icon at the top left corner when motion is detected anywhere in the detection zone. ● TRACE: shows color blocks where motion is detected.	OFF
		Delay out	1, 3, 5, 7, 9, 13, 15	Sets the time taken for the alarm message to show after a motion is detected.	1

Note:

The factory default GAMMA value is set to be 1. It will be adjusted to 0.45 every time when you select RESET. For optimal image performance, it is recommended to adjust the GAMMA value to 1.

Specifications

GV-LPR CAM 10A 1/3'' B/W License Plate Recognition Camera			
Model		GV-LPR CAM 10A EIA DC 12V	GV-LPR CAM 10A CCIR DC 12V
Camera			
Image Sensor		1/3" B/W EXview CCD	
Resolution		570 TVL	
Video Standard		EIA	CCIR
Min. Illumination	Color	N/A	
	B/W	N/A	
	IR ON	0 Lux	
Shutter Speed		Automatic, Fixed (1/60 ~ 1/100000; Deault 1/500)	
White Balance		AWB	
Image Setting		Brightness, Contrast, Saturation, Sharpness, Gamma, White Balance, Flicker-less, Image Orientation, Shutter Speed	
IR LAMP			
LED Quantity		7 high-efficient LEDs	
IR Distance		10 m / 32.80 ft (optimal) 7 ~ 12 m / 22.96 ~ 39.37 ft	
Illuminator Life		25,000 hrs	
Lens			
Focal Length		5 ~ 50 mm	
Max. Aperture		1.6	
Mount		CS Mount	
Image Format		1/3"	
Operation	Focus	manual	
	Zoom	manual	
	Iris	DC	
Mechanical			
Lens Mounting		N/A	
Connectors	Power	DC Jack	
	Auto Iris	DC drive	
	TV-Out	BNC	
General			
Operating Temperature		Operation: -20 °C ~ 50 °C / -4 °F ~ 122 °F Storage: -20 °C ~ 70 °C / -4 °F ~ 158 °F	
Heater		N/A	
Power Source		12V DC	

Max. Power Consumption	15W
Dimensions (L x W x H)	315 x 109 x 110.2 mm / 12.40 x 4.29 x 4.34 in (with sun shield)
Weight	4.6 kg / 10.14 lb (with sun shield)
Construction	Robust aluminum with weatherproof sun shield
Regulatory	CE, FCC, C-Tick
Protection classification	IP66

Note:

All specifications are subject to change without notice.



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