

HTC-LP16DID Plate-Capture Camera

Installation Guide



ZEIM-4000437G A.1

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1. Notice of Use

- ◆ Follow all instructions. All requirements should be followed before using this camera.
- ◆ HUNT Electronic is not responsible for any technical or typographical errors and reserves the rights to this manual without notice.
- ◆ Keep this document for future reference.
- ◆ Install it with applicable outdoor housing and accessories.
- ◆ Please make sure the power source is DC12 V/AC 24 V. Only connect to the camera to this required power systems.
- ◆ The camera must be installed on a solid mounting surface.
- ◆ Store the camera and other accessories in a dry place.
- ◆ HUNT Electronic is not responsible for any damage caused by inappropriate use.

2. Product Overview

The HTC-LP16DID combines a high-performance plate-capture camera with Day/Night overview functionality to monitor surrounding areas, providing information on vehicle type, color, and shape. When integrated with the external License Plate Recognition (LPR) software, the HTC-LP16DID can also capture non-reflective. This camera can play a dual role, capturing license-plates and monitoring surrounding areas.

The camera's outstanding feature set ensures seamless integration and enhanced performance when used in conjunction with external LPR software. The HTC-LP16DID is equipped with powerful 850 nm IR to ensure that it works perfectly even in total darkness to deliver clear plate images. Its varifocal IR-corrected lens and IR day/night mode keep it in focus day and night to optimize its round-the-clock image-capture capabilities. In short, the HTC-LP16DID provides the kind of reliability and day-and-night surveillance-and-capture performance crucial to maximizing the efficiency of LPR applications.

Day/Night Overview Functionality

Day/Night overview functionality enables this plate capture camera to monitor surrounding areas, gathering information on vehicle type, color and shape.

24-hour Surveillance

The HTC-LP16DID incorporates an ICR day/night mode enabling the camera to adapt to diverse lighting conditions.

Powerful IR

Its powerful IR functionality and integrated IR-corrected lens deliver perfect image captures and outstanding images. It is also equipped with a high-power LED to help minimize energy usage.

Wide Range Capture

Its built-in 9-22mm lens captures a wide 3-8 m(10-27 ft) field.

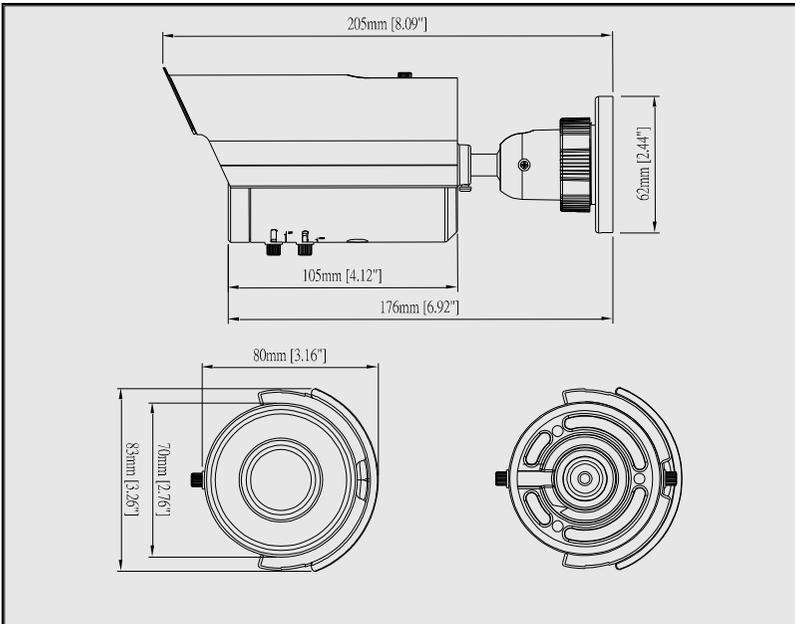
Rain Guard/ Extendable Sunshield

The camera's rain guard and extendable sunshield minimize the effects of rain and sunlight on image quality.

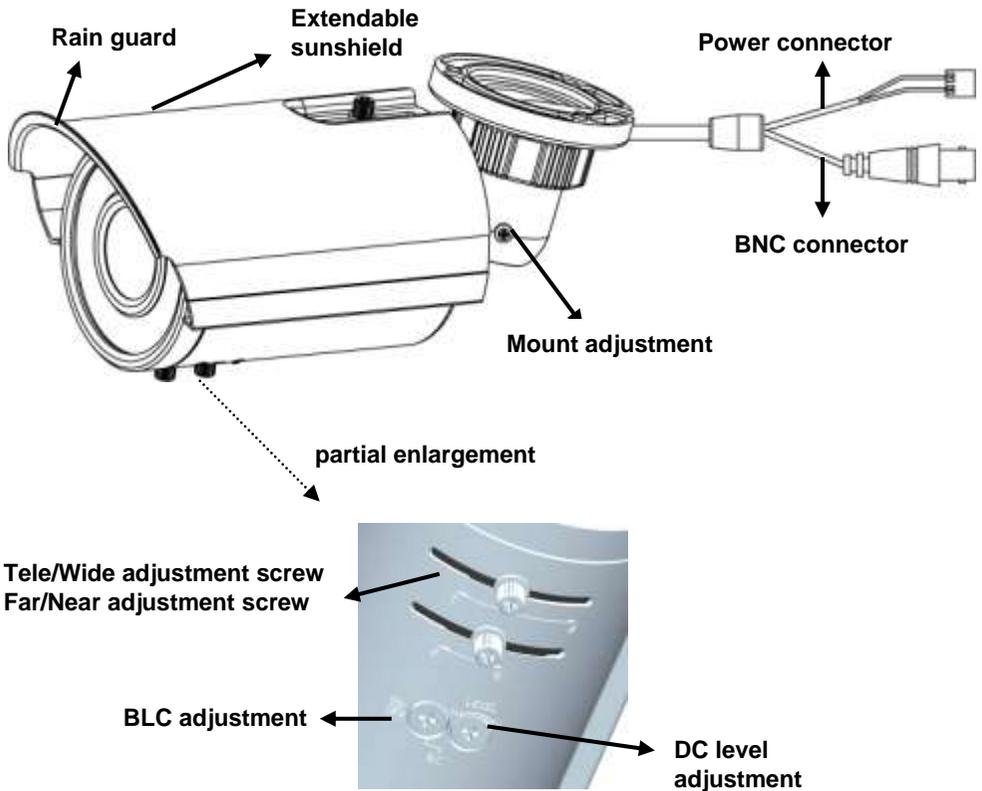
Easy Installation

The cable-management bracket enables easy installation in any location, including walls, surfaces, and ceilings.

Dimensions



2.1 Camera Parts Definition



- ◆ Rain guard/extendable sunshield: minimize the effects of rain and sunlight on image quality.
- ◆ Tele/Wide and Far/Near adjustment screws: lens adjustment
- ◆ Mount adjustment: easy to mount at different angles
- ◆ BNC connector: video output
- ◆ Power connector: DC12V/AC24V
- ◆ BLC adjustment: to adjust brightness for black light compensation
- ◆ DC level adjustment: to adjust lens aperture level according to the lighting conditions.

2.2 Specification

Image system		
Signal system	NTSC	PAL
Image Sensor	1/3" SONY CCD	
Effective pixels(HxV)	768 x 494	752 x 582
Electric		
Scanning system	2:1 Interlace V: 59.94Hz,	2:1 Interlace V: 50Hz,
	H: 15.734KHz	H: 15.625KHz
Sync system	Internal	
Horizontal resolution	540 TV lines (color)/ 600 TV lines (B/W)	
Built-in lens	f=9mm ~ 22mm, F1.4 DC iris varifocal IR-corrected lens External adjustments (zoom and focus)	
Day & Night Mode	Yes(Mechanical ICR Filter)	
View angle	Horizontal: 32.1°(wide) ~ 13.1°(tele) Vertical: 23.3°(wide) ~ 9.8°(tele)	
Gamma correction	0.45	
Minimum illumination	IR LED OFF: 0.015 lux (F1.4, AGC on, 10 IRE); 0.3lux (F1.4, AGC on, 50 IRE) IR LED ON: 0lux	
S/N ratio	More than 50dB (AGC off)	
Gain control	Auto	
White balance	Auto:(2500°K~9500°K)	
BLC	Auto(Center Weighting)	
Video output	1Vpp composite output, 75 ohm	
IR LED	Super power LED 36pcs	
IR wavelength	850nm	
Plate Capture	Non-Reflective	Non-Reflective
IR distance	15 Meter (50 ft.)	
Capture range	3~8 Meter (10~27 ft.)	
Capture speed	up to 30 km/h (16 mph)	
IR turn on status	Under 10 lux by photocell auto controlled	
LED life	More than 10,000 hours (50°C/122°F)	
Power supply		
Power requirement	DC12V/AC24V	
Power consumption	10W (max.)	10W (max.)
Environment		
Operating temperature	-10°C ~ 50°C (13.9 °F ~122°F)	
Operating humidity	30 ~ 90% RH	
Storage temperature	-20°C ~ 60°C (-4°F~140°F)	
Mechanism		
Dimensions(øxH)	ø83mmx205mm (ø3.26" x 8.09")	
Weight	610g (1.35 lb)	
Construction	Sunshield ; Cable management bracket Compact die-cast aluminum ; Tempered Glass	
Protection class	IP66 ; Vandal-resistance	

3. Mounting Specification & Installation Instruction

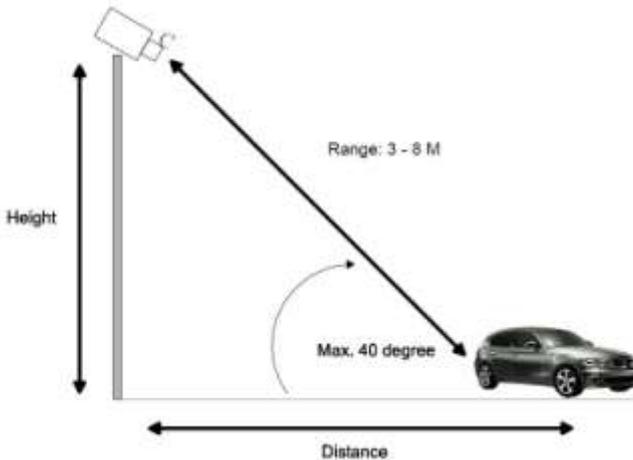
Please follow the mounting specification to install the HTC-LP16DID camera.

3.1 Package Content

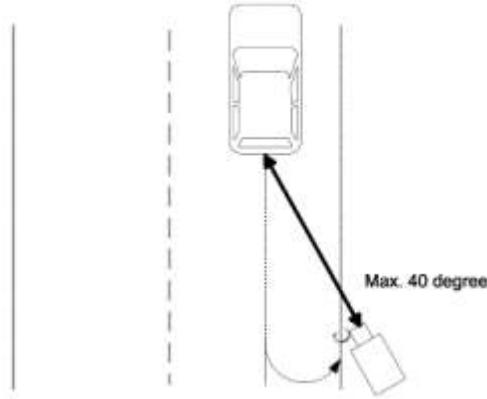
Item	Description
HTC-LP16DID camera	assembly camera
rubber pad	static electricity protection
3 insulation tubes	static electricity protection
guide pattern sticker	for marking hole easily
3 self-tapping screws	for mounting
3 plastic anchor	for cement ceiling mounting
printed material	installation guide, notice card

3.2 Mounting Specification

1. Use appropriate screws and select an appropriate location to install the camera.
2. Ensure the mounting surface can support to carry the weight of the camera.
3. Suggest the width of the license plate covers approximately 17-20% of the width of the screen when used in conjunction with external License Plate Recognition (LPR) software. Please make sure the range between the camera and the license plate is between 3 and 8 meters for optimal view when the camera is used in combination with external LPR software.
4. Suggest the camera stand height is more than 90 cm.
5. Suggest the vertical angle is less than 40 degree.



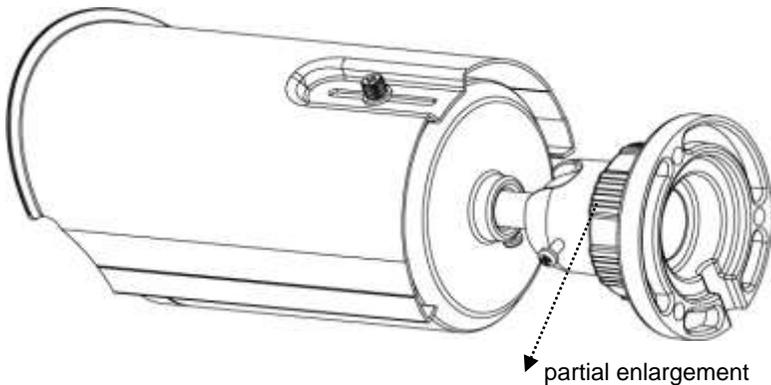
6. Suggest the horizontal angle is less than 40 degree. This camera is designed to cover only one lane (less than 3 meters).

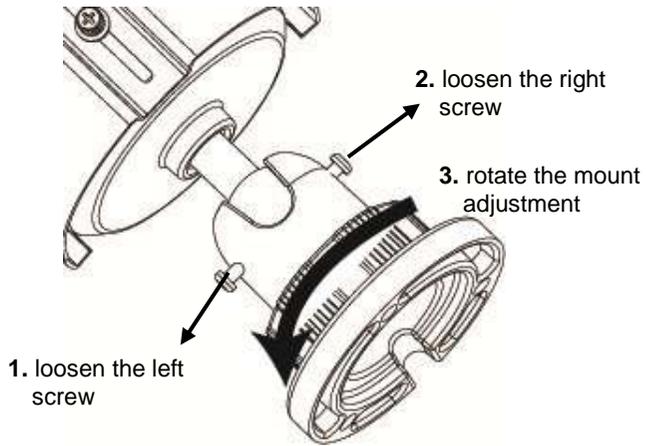


7. If work with DVR, make sure your DVR has the de-interlace feature and the frame rate is above 15 fps for optimal effect.
8. To ensure an optimal view, please adjust the lens under the limitation we suggest.

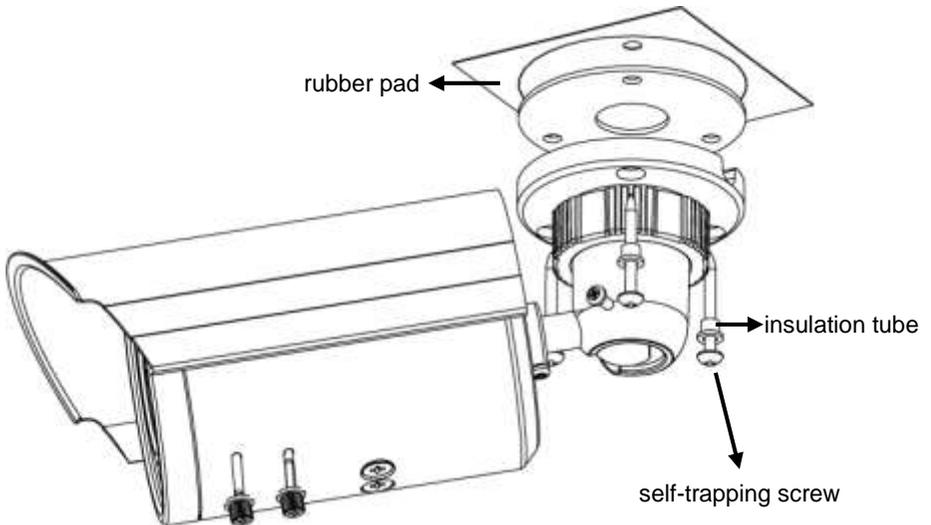
3.3 Camera Installation

1. **Mark hole positions:** use the guide pattern sticker to mark hole positions on the desired location. If you want to mount the camera on the cement ceiling, insert the plastic anchor into holes which you drill on the cement ceiling first.
2. **Adjust a mounting angle:** loosen the left and right screws first and then rotate the mount adjustment counterclockwise to adjust a desired angle for mounting. Finally, fasten the screws and rotate the mount adjustment clockwise to fix the desired angle.





3. **Install the camera:** use an appropriate tool to lock 3 self-trapping screws to fasten the camera. For static electricity protection, please use the rubber pad to cover the metal mount adjustment and put 3 insulation caps through the metal screws when locking 3 self-trapping screws into the desired location.



4. **Adjust the lens:** loosen the Tele/Wide or Far/Near screw counterclockwise and then adjust it according to your needs. After adjustment, be sure to lock it tightly to prevent water leaking into the body of the camera.



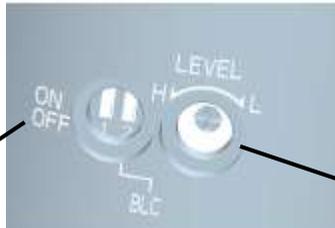
Warning: please do not adjust the Tele/Wide or Far/Near screw out of the instruction line to avoid damage to the lens.

5. **Adjust the BLC/DC function:** loosen the BLC screw. Use an appropriate tool to push the BLC function up or down (on or off). Loosen the DC screw and use an appropriate tool to rotate the DC function for high or low level.



Loosen the DC screw to adjust the DC level function.

Use an appropriate tool to loosen the BLC screw.



Use an appropriate tool to push the BLC button up or down (on or off)

Use an appropriate tool to rotate the screw for high or low level

6. **Adjust the sunshield:** loosen the screw counterclockwise, move the sunshield forward or backward and then turn the screw clockwise to fix the position of the sunshield. Be sure to adjust the sunshield in coordination with the lens to avoid sunshade problem.

move forward/backward

