

**SHT-7540LPDN
SHT-7540LPDNP**

Operational Manual
License Plate Capture Series
License Plate Capture Day & Night Camera

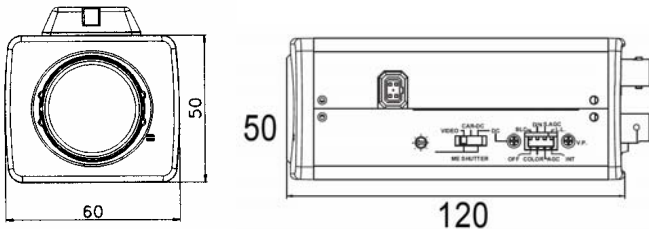


! Please read the Operational Manual before attempting to use this product.

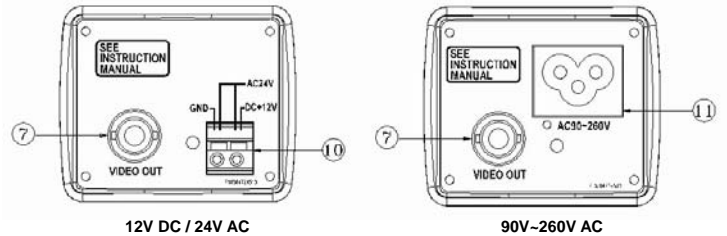
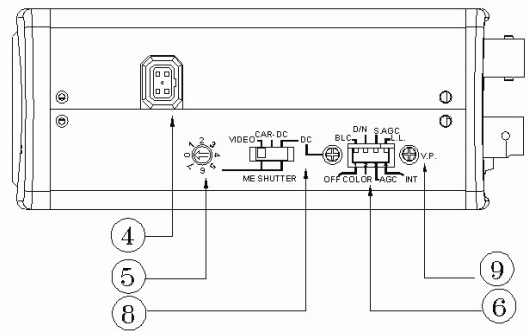
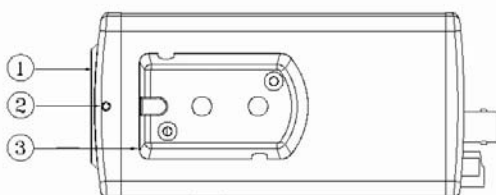
FEATURES

- 1/3" Sony Super HAD CCD II
- Sony HQ-1 DSP
- 540 TV Lines
- 0.08 Lux @ F1.0
- Built-in Auto Sens-up
- High Gain/Low Noise Amplifier - DNR
- Advanced 8-step Manual Shutter
- CAR-DC Iris Control is available to achieve reliable license plate recognition for road surveillance when car speed is up to 120km/hr in the daytime and 70km/hr at night time.
- Dual Power 12V DC / 24V AC

DIMENSIONS (Unit: mm)

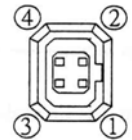


PARTS AND FUNCTIONS



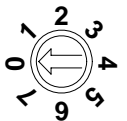
- Lens Mount**
This mount is used to install a CS-mount lens. CS-adaptor ring is required if using a C mount lens.
- CS Mount Fixing Screw**
Screw for fixing mount and adjusting back focus if needed.
- Mount Adaptor**
This adaptor can be attached to either the top or bottom of unit.
- Auto Iris Lens Connector (4-pin type)**
The lens connector supplies the auto-iris lens (not supplied) with DC power and a video signal or DC control signal.

PIN NO.	VIDEO	DC
1	DC + 12V	CONTROL -
2	NC	CONTROL +
3	VIDEO SIG	DRIVE +
4	GND	DRIVE -



- ME/AES Shutter Control**

(0) 1/100 (120) sec.	(1) FL: 1/130 sec.
(2) 1/160 sec.	(3) 1/210 sec.
(4) 1/280 sec.	(5) 1/360 sec.
(6) 1/420 sec.	(7) 1/560 sec.



Shutter Speed	Camera to object moving speed		
	15~20M (45~60ft)	20~35M (60~100ft)	35~60M (100~180ft)
1/210sec	30~60 Km/hr	45~75 Km/hr	
1/280sec	35~65 Km/hr	55~85 Km/hr	
1/360sec	45~75 Km/hr	65~95 Km/hr	
1/420sec	50~80 Km/hr	80~100 Km/hr	80~100 Km/hr
1/560sec	60~90 Km/hr	90~105 Km/hr	90~105 Km/hr

*The table above is only for reference. Values may change due to the angle of the camera and the installation location.

- Control Switch**
 SW1. BLC: Backlight Compensation OFF/BLC switch
 SW2. Day/Night Mode: D/N / Color switch
 SW3. AGC: Automatic Gain Control AGC/S.AGC switch
 SW4. Sync Mode: Sync Mode Selection L.L/INT switch

⑦ **Video Connector**

This is an output for connecting to a video monitor or recorder etc. (75 Ω).

⑧ **Auto Iris Mode Selection Switch**

For switching the output from the auto iris connector. Shutter speed is fixed at 1/100(120) sec. when switch is set to DC or VIDEO position.

DC: To be set when using a non-amp auto iris lens.

CAR-DC: To be set when using for license plate capture. (Car speed is up to 120km/hr in the daytime and 70km/hr at night).

VIDEO: To be set when using an auto iris lens with built-in amp.

⑨ **V.P. (Vertical Phase) Adjustor**

This is used to adjust the vertical phase of the video output signal

⑩ **Power Input Terminal**

Connect the power supply of 12V DC or 24V AC.

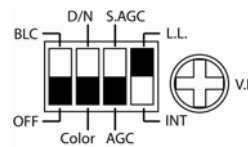
⑪ **Power Input Terminal**

Connect the power supply of 90V~260V AC.

SYNC Mode Switch

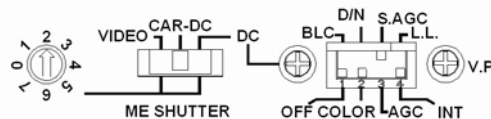
L.L. MODE: It synchronizes the video signal between cameras using the frequency of the power supply without external synchronous generator.

INT MODE: The camera maybe operated independently with the internal crystal control.

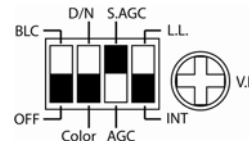


CONTROL SWITCH SETTING

For Road Surveillance: Car speed is up to 120km/hr in the daytime and 70km/hr at night.



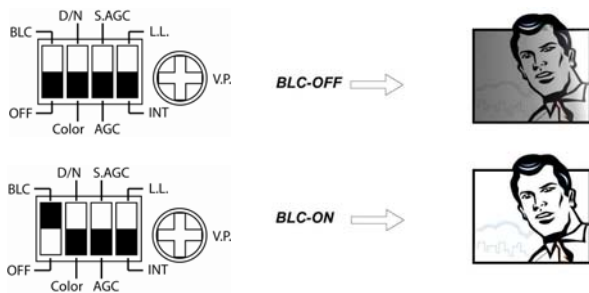
1. ME/AES Shutter Control should be set on "2". (Please refer to the function ⑤ **ME/AES Shutter Control**).
2. Auto Iris Mode should be switched to "CAR-DC" mode.
3. Control Switch should be set as following:



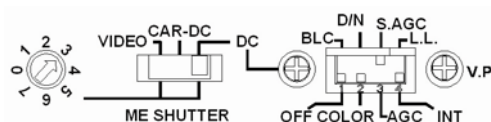
CONTROL SWITCH OPERATION

SW1. BLC (Back Light Compensation) Mode Switch

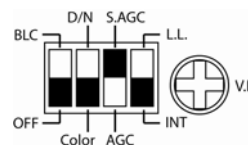
When strong light is present behind the object being photographed, the object will appear dark. In this case, turn on the BLC.



For Highway Surveillance:



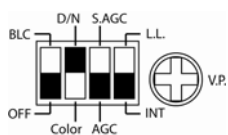
1. ME/AES Shutter Control should be set on "3" or "4". (Please refer to the function ⑤ **ME/AES Shutter Control**).
2. Auto Iris Mode should be switched to "VIDEO" or "DC" mode.
3. Control Switch should be set as following:



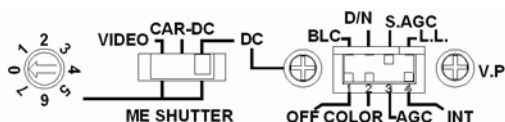
SW2. D/N (Day & Night) Mode Switch

D/N: Day & Night mode turns on at night time.

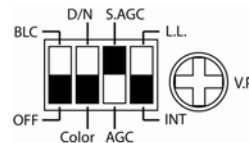
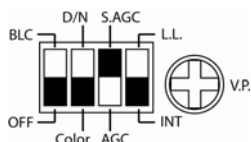
Color: Color mode stays on at all times.



For Normal Surveillance:



1. ME/AES Shutter Control should be set to "0". (Please refer to the function ⑤ **ME/AES Shutter Control**).
2. Auto Iris Mode should be switched to "VIDEO" or "DC" mode.
3. Control Switch should be set as following:



SPECIFICATIONS

Model	SHT-7540LPDN	SHT-7540LPDNP
TV System	NTSC	PAL
Image Sensor	1/3" Sony Super HAD CCD II	
DSP	Sony HQ-1	
Total Pixels	811(H) x 508(V)	795(H) x 596(V)
Video Output	1.0Vp-p Composite / 75ohms	
Resolution	540 TV Lines	
Minimum Illumination	0.08 Lux @ F1.0 Color mode automatically switches to B/W mode under 2 Lux	
Infrared Sensitivity	700~1100nm	
Electronic Shutter Speed	AES ON, AES OFF, 1/100(120)sec, FL: 1/130sec, 1/160sec, 1/210sec, 1/280sec, 1/360sec, 1/420sec, 1/560sec	
Back Light Compensation	ON/OFF Switchable	
Auto Gain Control	ON/OFF Switchable	
Day/Night	D/N / COLOR Switchable	
DNR / Sens-up	High Gain/Low Noise Amplifier	
Scan System	2:1 Interlace	
Synchronization	Internal/Line Lock (AC Version Only)	
S/N Ratio	More than 50dB (S.AGC OFF)	
Auto Iris Control	Video / DC Switchable	
Auto White Balance	AWB	
Lens Mount	CS/C (with adaptor)	
Power	12V DC / 24V AC, 3.0W 90~260V AC, 4.5W	
Operation Temperature	14°F ~ 122°F / -10°C ~ 50°C	
Storage Humidity	RH 80% or less	
Storage Temperature	-4°F ~ 140°F / -20°C ~ 60°C	
Dimension	4.72"(L) x 2.36"(W) x 1.97"(H) 120mm(L) x 60mm(W) x 50mm(H)	
Weight	0.88 lbs / 400g	

*Specifications are subject to change without notice

PACKAGE CONTENTS

- One (1) SHT-7540LPDN/SHT-7540LPDNP Camera
 - One (1) Operational Manual
- * For any returns, please include all components listed above with original packaging in **Resalable Condition**. **Absolutely No Returns** will be accepted if any component is missing/damaged or if any cable is cut or tampered with.



CAUTION

- 1. Never point the camera toward the sun**
Do not expose the lens directly to the sun or to strong light as this may damage the pick-up device.
- 2. Handle this camera with care**
Avoid any shock or bumping of the camera. Improper handling could damage the camera.
- 3. Requires a proper operating environment**
This camera is designed for outdoor or indoor use. The allowable temperature range for operation of this camera is between 14°F ~ 122°F / -10°C ~ 50°C and the allowable humidity is 80%RH maximum.

4. Clean the front face to the pick-up device

It is recommended that the pick-up device surface be cleaned before lens installation or whenever the lens is changed.

Cleaning should be done by using a chamois, a very fine soft cloth, lens tissue, or cotton tipped applicator and ethanol to carefully remove any fingerprint or dust.

5. Check the power source voltage

The power source voltage should be within the specified range. (Camera must meet the specifications). Camera must be connected to a surge protector at all times.

6. Objects and liquid entry

Never push objects of any kind into this camera as this may touch dangerous voltage points of short out parts that could result in a fire or electric shock. Never spill any kind of liquid on the video product.

7. Servicing

Do not attempt to service this video product by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.

8. Damage requiring service

Unplug this video product from the wall outlet and refer service to qualified servicing personnel under the following conditions:

- a. When the power supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the video product.
- c. If the video product has been dropped or the cabinet has been damaged.
- d. When the video product exhibits a distinct change in performance.



WARRANTY

OKINA USA products are covered under warranty for one year from the date of purchase. The warranty will automatically be voided if any of the following occurs:

1. Camera sticker is removed

If the camera sticker is removed, we will not be able to confirm any information regarding when and where the product was purchased. We have no other way to verify the purchase record without the serial number on the camera sticker; therefore, it should not be removed.

2. Camera is modified in any way

If the camera is scratched, damaged, or modified in a manner not described in this manual, the warranty will be voided immediately. It is the customer's responsibility to keep the camera in good condition.

3. Video or power cable is cut

The video cable and the power cable should not be tampered with. Cutting or modifying of the cables will result in termination of the warranty.