

INSTRUCTION MANUAL Ver 3.0

HIGH SPEED

Pan, Tilt and Zoom Dome Camera / ACD-2500-LG27





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Features

□ Camera Specification

- Sony Module 480 Lines
- 27X Optical Zoom
- 10X Digital Zoom
- 3.25mm – 88mm Zoom
- 24v AC

□ Complete View

- 360 Degree Pan, 90 Degree Tilt. For No Blind Spots
- Automatic 180° Flip

□ Housing

- Indoor / Outdoor use, Weather Proof Housing
- Multiple Mounting Configurations
- Operating Temperatures: -31° to 131° F

□ PTZ Control

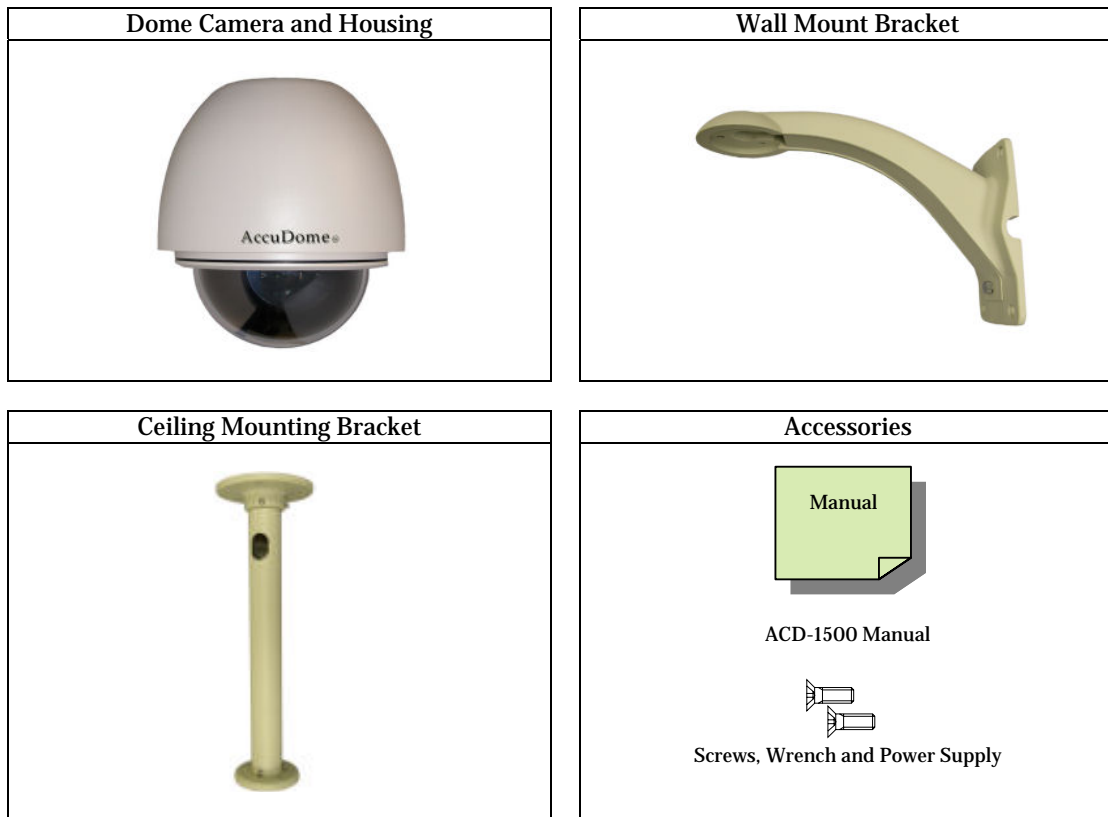
- RS-485 Communication, MAX 31 Multi-drop
- 16 Integrated Protocols including Pelco-D and Pelco P
- 40 Second Recordable Pattern
- Auto Home Feature
- Precision up to $\pm 0.1^\circ$
- High Speed – up to 300°/sec
- Variable Pan and Tilt Speed
- 128 Programmable Presets
- Variable Preset Speed and Preset Timers
- OSD Setup
- 6 Programmable Cruise Sequences

Components

□ Parts Information

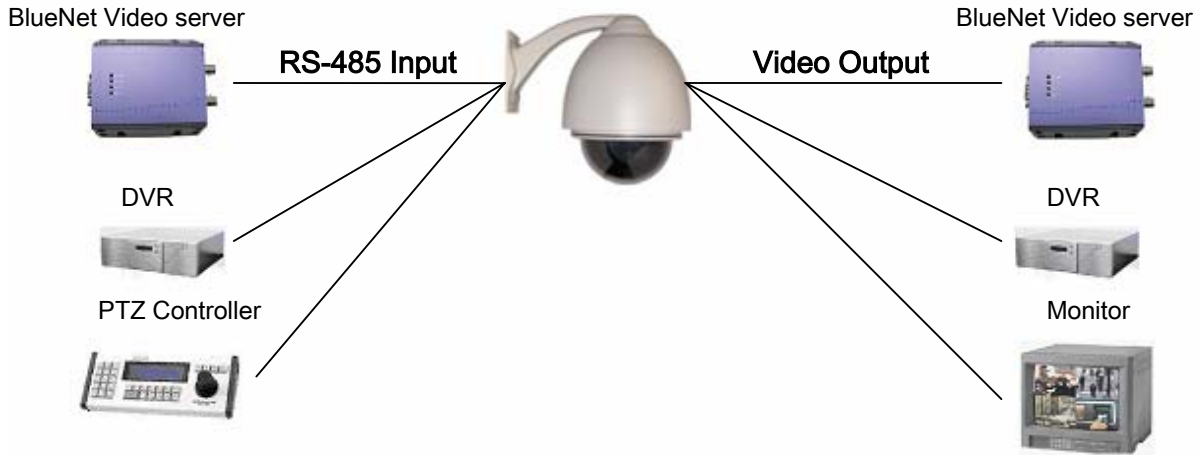
Item	Part No.	Description
Dome Camera and Housing	ACD-2500S-LG27	NTSC Dome Camera, Weather Proof Housing, Including Transparent Dome
Wall Mount Bracket		Bracket for mounting PTZ to Wall
Pendant Mount Bracket		Bracket for mounting PTZ to Ceiling
Pendant Mount Plug		Plug for Pendant Mount Cable Feed Opening
Mounting Screws & Wrench		Allen Screws for mounting PTZ to Mount
Power Supply		24v AC Power Supply
Manual		Manual for ACD-2500S-LG27

□ Default Components

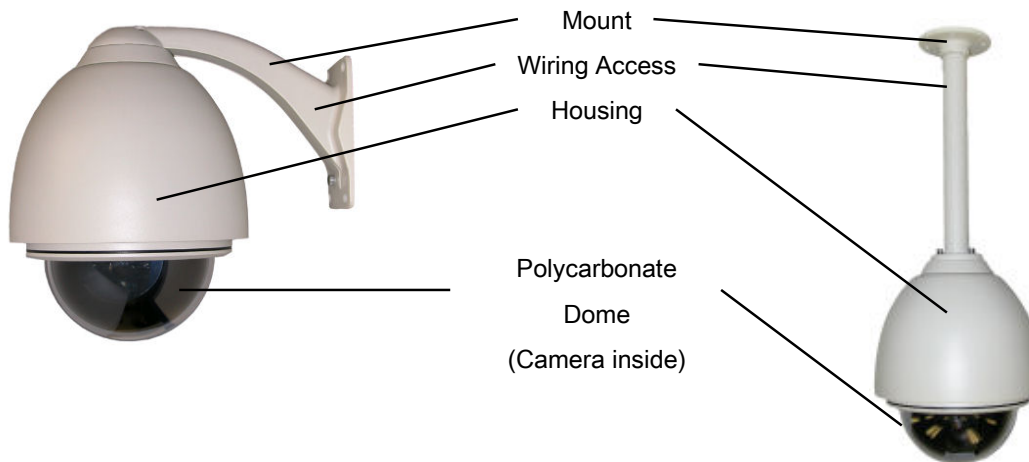


System Configuration

□ Configuration



□ Part Description



- Mount Used to install Camera Housing
- Housing Protects Internal Components From the Elements
- Polycarbonate Dome Protects PTZ Camera
- Wiring Access Allows access to internal wiring
- Built in Heaters Keeps lens clear in cold weather

Physical Connection

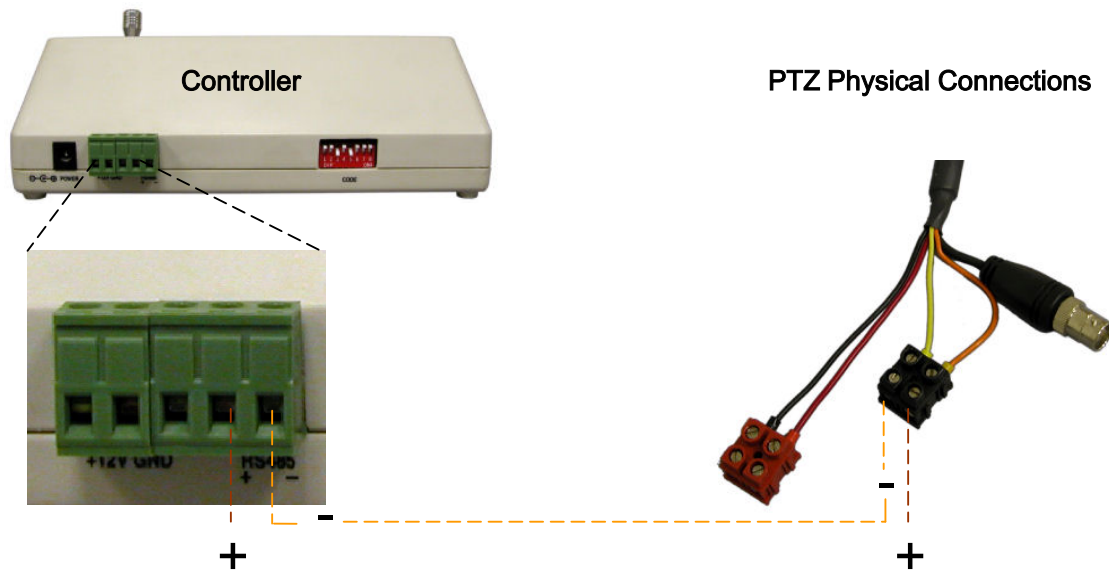
□ RS-485 communication

RS-485 communication is used to control a PTZ camera. Standalone DVRs, PC-based DVRs, keyboard joystick PTZ controllers, video servers, and a variety of other CCTV equipment usually have an RS-485 interface (push terminals, D-Sub connector, etc.) for PTZ control. The CCTV equipment transmits control signals while the PTZ camera receives the signals and performs the function required.

RS-485 utilizes two wires; a '+' wire and a '-' wire. These two wires may also be label or reference as:

- + and -
- D+ and D-
- A+ and B-
- RS485+ and RS485-

To make the physical connection from the controlling device (DVR, keyboard controller, etc.) to the PTZ, simply connect the RS485 '-' from the controlling device to the RS485 '-' on the PTZ. Do the same for the RS485 '+'. Any type of wire can be used for the connection, but 0.56mm (24AWG) twisted pair is recommended.



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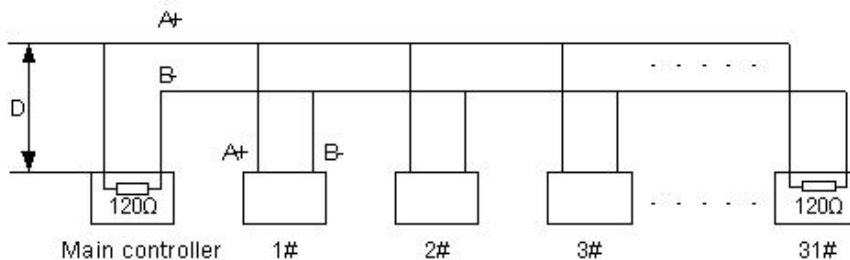
Baud Rate is the data transmission rate in bps (bits per second). Both the controlling device and PTZ must use the same baud rate. Most PTZ camera and devices default to a baud rate of 2400 bps.

The maximum theoretical transmitting distances of RS-485 are below using 0.56mm (24AWG) twisted pair cable.

Baud Rate	Maximum Distance
2400 bps	1800m
4800 bps	1200m
9600 bps	800m

If thinner cables are used or the dome is installed in an environment with strong electromagnetic interference or many PTZs are used on the same line, the maximum distance will be decreased.

For multiple PTZ installs, RS485 standards require a daisy-chain connection between the equipment. Up to 32 devices, including the controller can be daisy-chained. A 120 Ω termination must be made on the first and last device in the chain. Most controllers are already terminated. To terminate the last PTZ in line, simply locate the 120 Ω termination resistor jumper on the PTZ's protocol PCB and set the jumper to pins 1 & 2. By default, the PTZ is not terminated, thus having the pins on 2 & 3. For Star Configurations, see the next page.



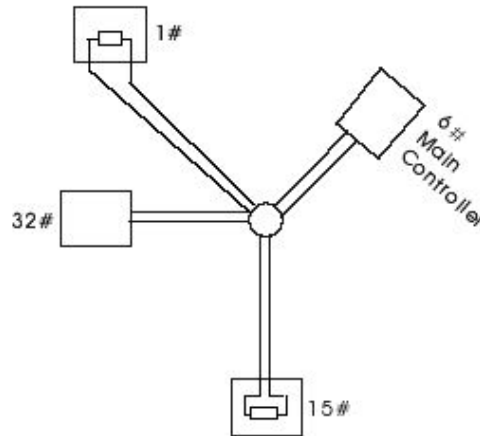
Termination Jumper Location.



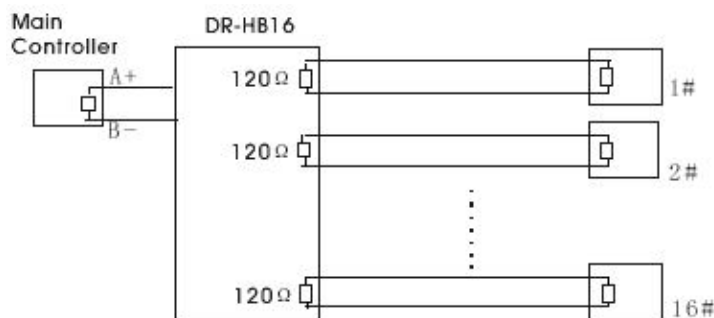
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Multiple PTZ (cont.)

Some circumstances require the use of a star configuration. The termination resistors must be set on the two devices that are the farthest distances away from each other, in this case #1 and #15 as seen below.



As the star configuration does not conform to the RS485 standards, problems such as signal reflection and lower anti-interference performance arise when the cable runs are long. In addition, the reliability of control signals are decreased which may cause the PTZ to respond intermittently, not respond at all, or operate a single command continuously without ever stopping. In these circumstances, the factory recommends the use of an RS485 distributor (DR-HB16). The distributor can change the star configuration connection to the mode of connection stipulated in the RS485 standards. With the distributor, reliable data transmission can be received.



□ PTZ Addressing and Communication Protocol

Before installing PTZs, you must understand 3 things:

- PTZ Camera ID
- PTZ Protocol
- PTZ Baud Rate

PTZ Camera ID - Each PTZ camera in an install must have a unique ID number assigned. Most PTZs default to ID#1. The PTZ controller must be told what PTZ camera to control, and this ID number is called to control the corresponding camera. The PTZ ID number can be set to any number 1 – 1023.

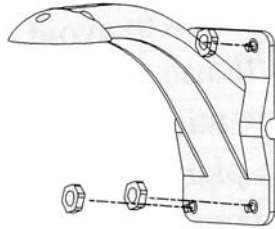
PTZ Protocol - All PTZ controllers and cameras need to support a common communication language in order to send/receive control commands. This language is called a protocol. The protocol set in the PTZ camera must match the protocol set in the controller. Below is a list of commonly supported protocols.

- Pelco-D
- Pelco-P
- Santachi
- Hunda600
- Longcomity
- Panasonic
- Kalatel
- Samsung

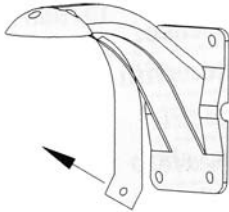
PTZ Baud Rate - Baud Rate is the data transmission rate in bps (bits per second). Both the controlling device and PTZ must use the same baud rate. Most PTZ cameras and devices default to a baud rate of 2400 bps.

System Installation

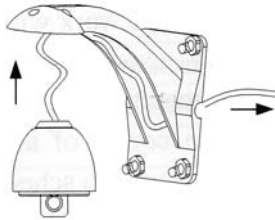
□ Wall Mount Installation using Outdoor Housing Assembly



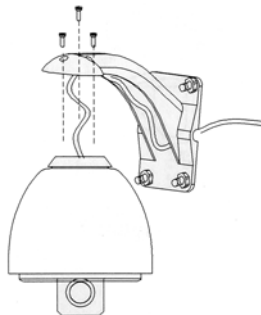
- 1) Attach the Wall Mount Bracket to the wall. Make sure the wall can support the weight and vibration of the camera and housing.



- 2) Remove thumb screw holding access cover in place on Mounting Arm.



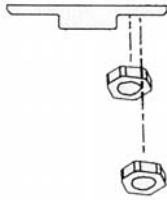
- 3) Route the wiring through the inside of the arm and out the access hole.



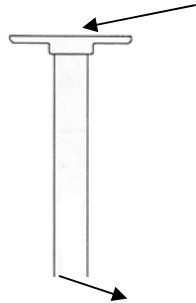
- 4) Assemble and screw the Outdoor Housing Assembly on the Mount Bracket while routing the wiring from the camera through the neck of the bracket and out the access hole.

Continue to page 11

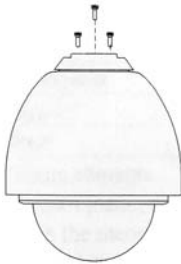
□ Ceiling Mount Installation using Outdoor Housing Assembly



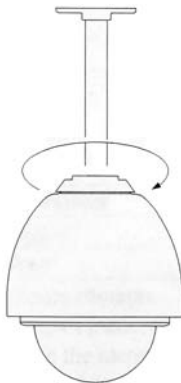
- 1) Mount the Top Ceiling Mount Bracket to the Ceiling. Make sure the Ceiling can support the weight and vibration of the camera and housing.



- 2) Route the wiring through the bottom Ceiling Mount Bracket and Extension.

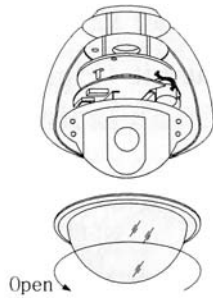


- 3) Attach assembly to the PTZ camera using the included Allen Screws. Tighten set screws.

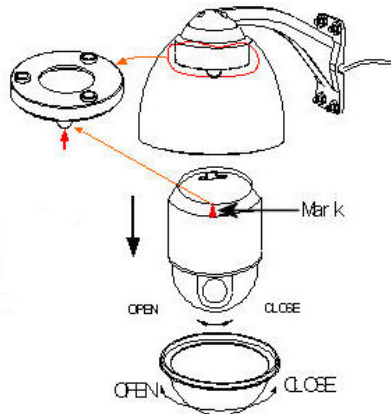


- 4) Align the PTZ Assembly into the top of the ceiling mount. Turn clockwise to thread extension into mount. Tighten set screws.

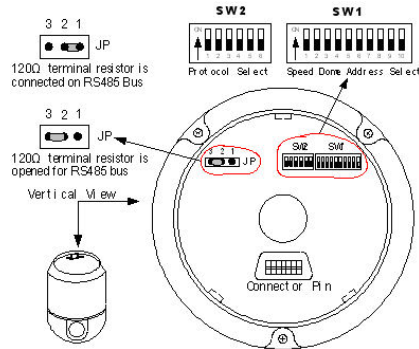
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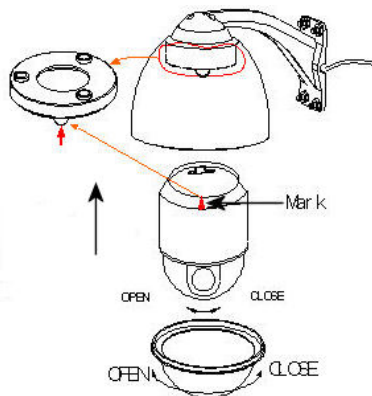
- 5) Unscrew Polycarbonate dome cover counter-clockwise.



- 6) Push and rotate counter-clockwise on the internal cylinder assembly to remove. This is required to set the address, protocol, baud rate, and termination dip switches located on the top side of the cylinder assembly.



- 7) Set DIP switches according to Address, Protocol and Baud rate desired. (See page 13 for details)



- 8) Align the MARK arrow on the outside of the internal cylinder assembly with the MARK arrow on the inside of the dome housing. Without forcing, push to engage the cylinder to the housing and rotate clockwise to lock.

Camera Addressing

□ RS-485 communication

RS-485 communication is used to control the camera. RS-485 utilizes two wires, + and -. Protocol, Baud rate and Camera Address are also required and are set using 2 sets of Dip Switches located on the top side of the internal cylinder assembly (see page 12). Each camera connected to the PTZ controller must have a unique address.

- Specification Standard RS-485 with MAX. 31 Camera Control
- Number of wire 2 Wire (D+, D-)
- Protocol Pelco-D, Pelco-P, A01, B01, Santachi, Longcomity and HUNDA600

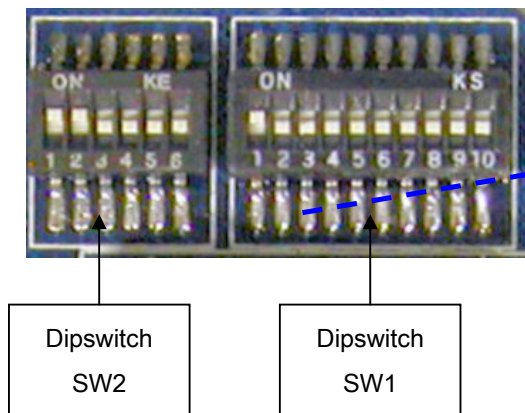
□ SW 1 : Camera Address Settings

SW1

ON

DIP #	1	2	3	4	5	6	7	8	9	10
Value	1	2	4	8	16	32	64	128	256	512

- Factory Default ID is 1
- The dip switches are equivalent to 10-bit binary. Examples are listed on the next page.



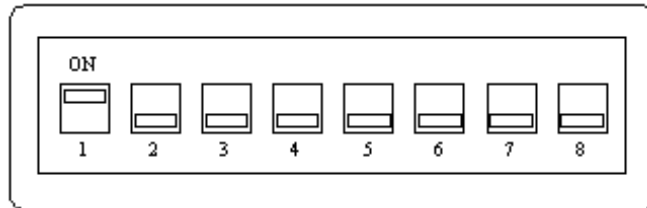
□ SW 1 : Camera Address Settings (continued)

When using more than 1 RS-485 device each unit must be given a unique address. Refer to the chart on the previous page for the value of each dip switch. For each dip switch that is ON the value/values are added together, the total is the address of that unit.

For Example:

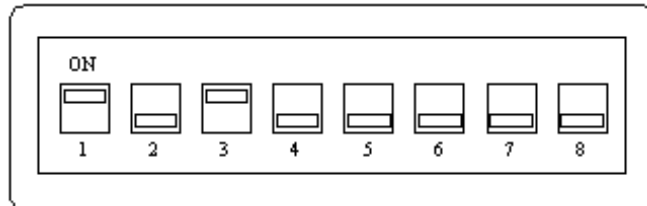
For an address of 1:

Dip switch #1 (value = 1) will be ON all others OFF



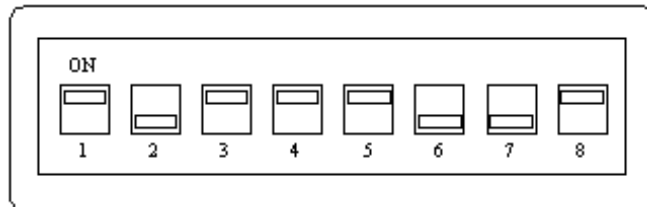
For an address of 5:

Dip switch #1 (value = 1) & #3 (value = 4) will be ON all others OFF



For an address of 157:

Dip Switch #1 (value = 1), #3 (value = 4), #4 (value = 8), #5 (value = 16), #8 (value = 128) will be ON all others OFF

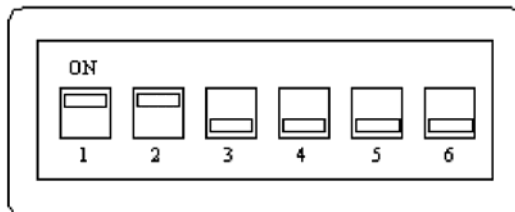


❑ SW 2 : Camera Protocol and Baud Rate Settings

This camera supports multiple RS-485 Protocols and Baud Rates which can be set using the SW2 Dip switch located on the top side of the internal cylinder assembly. The table below contains a list of protocols supported by the camera and the default baud rate for the protocol.

Supported Protocol	Selection Of Protocols				Default Baud Rates	
	1st	2nd	3rd	4th	5th	6th
Pelco D /2400	ON	ON	OFF	OFF	OFF	OFF
Pelco P /4800	OFF	OFF	ON	OFF	ON	OFF
Pelco P /9600	OFF	OFF	ON	OFF	OFF	ON
Samsung	ON	OFF	OFF	OFF	OFF	ON
B01	ON	OFF	OFF	OFF	OFF	ON
Santachi	OFF	ON	OFF	OFF	OFF	ON
Longcomity	OFF	ON	ON	OFF	OFF	ON
Hunda600	ON	ON	ON	OFF	OFF	ON
Neon	ON	OFF	OFF	OFF	OFF	ON
Panasonic	ON	OFF	ON	OFF	OFF	ON
Lilin	OFF	OFF	OFF	ON	OFF	ON
Vicon	ON	OFF	OFF	ON	ON	OFF
Molynx	OFF	ON	OFF	ON	OFF	ON
Kalatel	ON	ON	OFF	ON	ON	OFF
VCL	OFF	OFF	ON	ON	OFF	ON
ALEC	OFF	ON	ON	ON	OFF	ON
Ultrak	ON	ON	ON	ON	OFF	ON

Dip Switch settings for configuring the camera to use Pelco D Protocol at 2400 Baud:



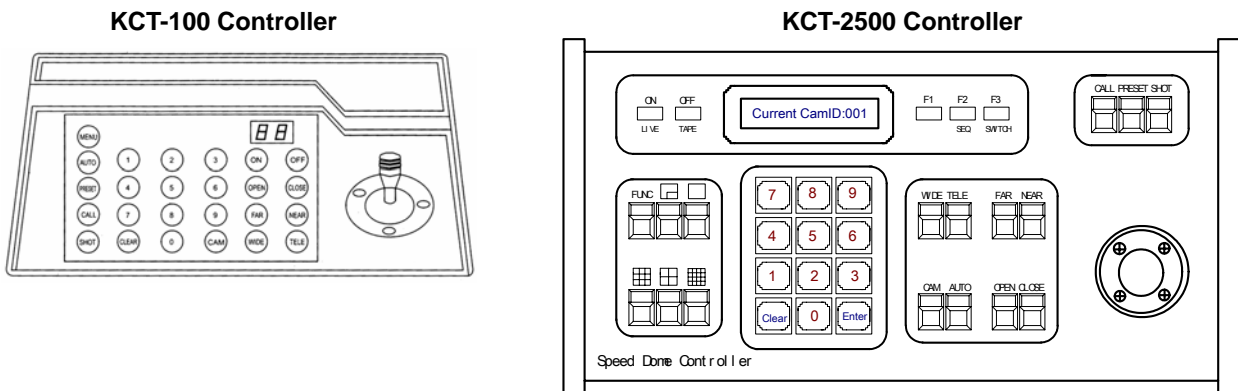
Below is a table showing the proper settings of the 5th and 6th dip switch on SW2 for setting preferred baud rate to match that of the PTZ controller.

Baud Rate	Selection Of Protocols				Baud Rates	
	1st	2nd	3rd	4th	5th	6th
2400					OFF	OFF
4800					ON	OFF
9600					OFF	ON
19200					ON	ON

Basic Functions

Once initial control of the PTZ has been established by correctly connecting RS-485, setting matching protocol and baud rate in the PTZ and controller, and the user is able to pan, tilt, and zoom additional features can be utilized.

All Basic Functions such as setting presets, calling presets, and clearing presets are listed in this section. Examples have been given below for operation using the KCT-100 and KCT-2500 keyboard joystick controllers.



NOTE In the following operational description, the capital letter N represents the number you wish to set.

□ Selecting the Camera

- KCT-100: [N] + [CAM]
Ex: To select camera 1, simply press 1, then CAM
- KCT-2500: [CAM] + [N] + [ENTER]
Ex: To select camera 1, simply press CAM, then 1, then Enter

**If successful, the Camera ID you have chosen will be shown on the controller display

❑ Setting a Preset Position

- KCT-100: [N] + [PRESET]
Ex: To set preset 1, simply press 1, then PRESET
- KCT-2500: [PRESET] + [N] + [ENTER]
Ex: To set preset 1, simply press PRESET, then 1, then ENTER

**If successful, the on screen display will display the saved preset

❑ Calling a Preset Position

- KCT-100: [N] + [CALL]
Ex: To call preset 1, simply press 1, then CALL
- KCT-2500: [CALL] + [N] + [ENTER]
Ex: To call preset 1, simply press CALL, then 1, then ENTER

**If successful, the camera will move to the specified preset position

❑ Clear or Delete a Preset

- KCT-100: [N] + [CLEAR]
Ex: To clear preset 1, simply press 1, then CLEAR
- KCT-2500: [PRESET] + [N] + [OFF]
Ex: To clear preset 1, simply press PRESET, then 1, then OFF

** There will be no notification of successfully clearing the preset. Move the controller and call the preset to ensure that no movement occurs, signifying a successful clear.

On Screen Display**□ On Screen Display (OSD):**

All of the Advanced Functions of this camera are set in the PTZ's On Screen Display (OSD). This includes display setup, camera setup, auto pan setup, auto cruise setup, auto home feature, and recordable pattern setup. To open the On Screen Display, CALL Preset 64.

Function	Action on Controller
OPEN OSD Menu	Call preset 64
MOVE CURSOR DOWN	TILT DOWN
MOVE CURSOR UP	TILT UP
MOVE CURSOR RIGHT	PAN RIGHT
MOVE CURSOR LEFT	PAN LEFT
ENTER / SELECT	OPEN or IRIS OPEN
EXIT SUB MENU	CLOSE or IRIS CLOSE

Main Menu

MAIN MENU	
1.DISPLAY SETUP	
2.CAMERA SETUP	
3.CONTROL SETUP	
4.CAMERA MASK SET	
5.PROGRAM	
6.PAL CAMERA	
7.CAM DEFAULT SET	
8.DOME RESET	
9.EXIT	

Menu Option	Description
DISPLAY SETUP	Sets ID display, preset title display, and camera display (see page)
CAMERA SETUP	Sets any supported camera settings (see page)
CONTROL SETUP	Sets auto flip, alarms, auto home feature (see page)
CAMERA MASK SETUP	Not Available
PROGRAM	Sets auto pan, auto cruise, preset titles, and recorded pattern (see page)
PAL CAMERA	PAL/NTSC switching to suit the camera (see page)
CAM DEFAULT SET	Resets the setup of camera to default (see page)
DOME RESET	Resets all settings in this PTZ OSD menu to default
EXIT	Exits OSD

Display Setup

DISPLAY SETUP	
1.ID DISPLAY	ON
2.ID POS	TOP-L
3.TITLE DIS	ON
4.TITLE POS	01 LINE
5.CAM DISPLAY	ON
6.RETURN	

Menu Option	Description
ID DISPLAY	Shows/Hides the Camera ID (Ex: CAM 001)
ID POS	Positions the Camera ID display
TITLE DIS	Shows/Hides the Preset Title
TITLE POS	Positions the Preset Title from Line 1 to Line 10. Line 1 is top of screen
CAM DISPLAY	Shows/Hides the LG Camera OSD such as Zoom Magnification and Icons
RETURN	Returns to the Main Menu

Camera Setup

CAMERA SETUP	
1.SLOWSHUTTER	AUTO
2.BACK LIGHT	OFF
3.ICR SHOT	AUTO
4.IRIS	AUTO
5.D-ZOOM	ON
6.FOCUS	AUTO
7.WB SET	ATW
8.MENU OF CAM	
9.RETURN	

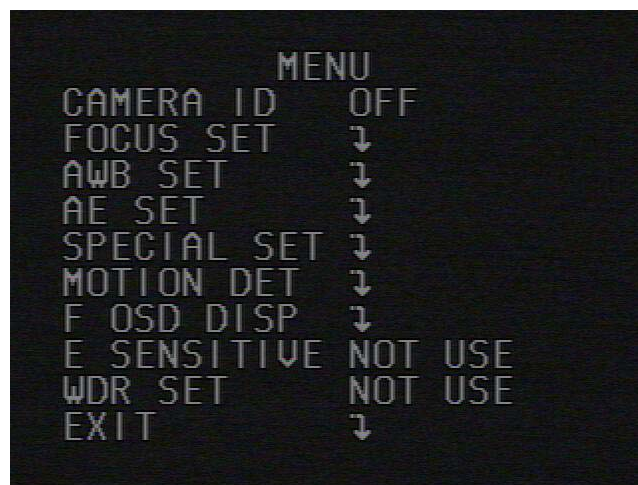
Menu Option	Description
SLOWSHUTTER	Not Available
BACK LIGHT	Backlight Compensation On/Off
ICR SHOT	Not Available
IRIS	Iris Auto/Manual
D-ZOOM	Digital Zoom On/Off
FOCUS	Focus Auto/Manual
WB SET	White Balance Setup – ATW / Indoor / Outdoor / One Push / Auto / Manu
WDR (OPTION)	Not Available
MENU OF CAM	Enters the OSD of the LG camera for additional settings (see pages 24-27)
RETURN	Return to Main Menu

Menu of Cam

The LG Zoom camera installed supports an additional On Screen Menu for additional camera settings. To navigate this menu, use the commands below. To exit this menu, select the Exit option from the main menu, press FAR or Focus Far, then press the Close button on the KCT-100 or KCT-2500 controllers (Iris Close on all other controllers). This will bring the user back to the PTZ OSD Camera Setup Menu. If Close was not pressed, user will be unable to move the PTZ, press the CLOSE button until the PTZ OSD menu reappears.

Function	Action on Controller
MOVE CURSOR DOWN	WIDE or Zoom In
MOVE CURSOR UP	TELE or Zoom Out
MOVE CURSOR RIGHT	NEAR or Focus Near
MOVE CURSOR LEFT	FAR or Focus Far
ENTER / SELECT	FAR

OSD Main Menu

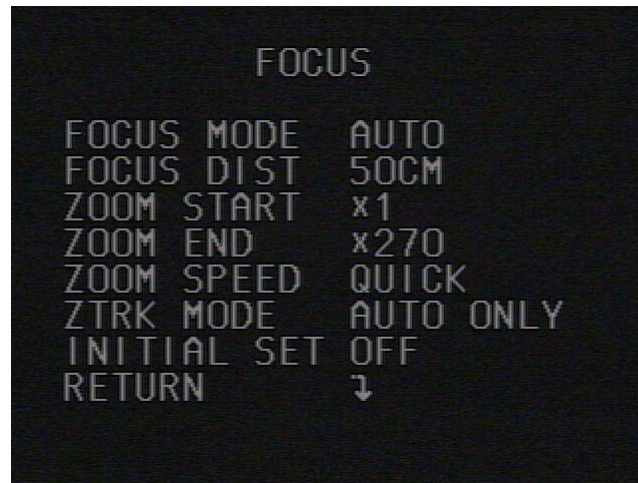


Menu Option	Description
CAMERA ID	
FOCUS SET	Opens the Focus Menu (see page)
AWB SET	Opens the Auto White Balance Menu (see page)
AE SET	Opens the Auto Exposure Menu (see page)
SPECIAL SET	Opens the Special Menu (see page)
MOTION DET	Opens the Motion Detection Menu (see page)
F OSD DISP	Opens the Function Display Menu (see page)
E SENSITIVE	Not Used
WDR SET	Not Used
EXIT	Exits OSD

Menu of Cam (continued)

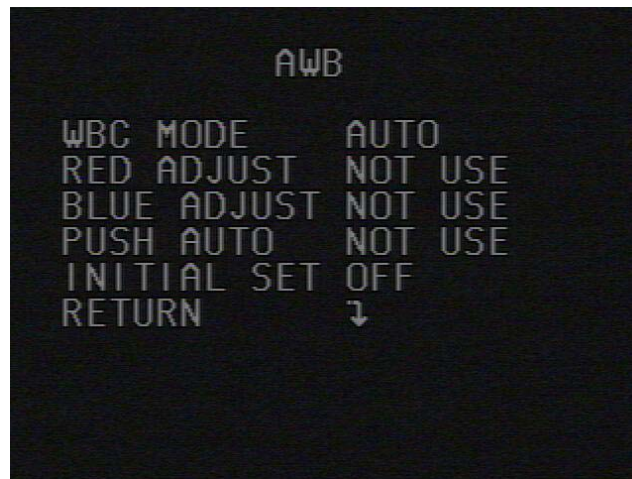
□ Focus Set Menu:

Focus Menu



□ Auto White Balance (AWB) Menu:

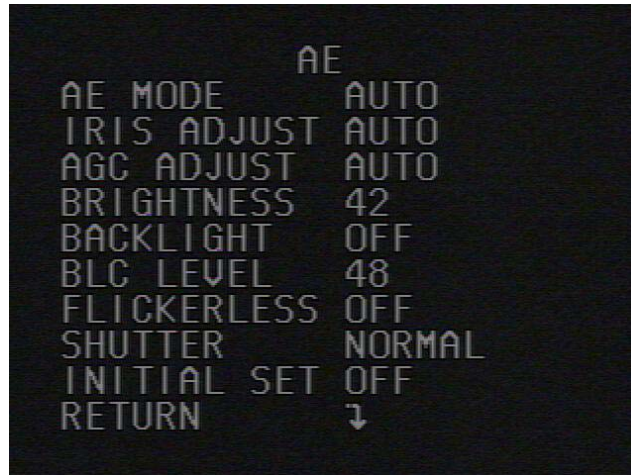
Auto White Balance Menu



Menu of Cam (continued)

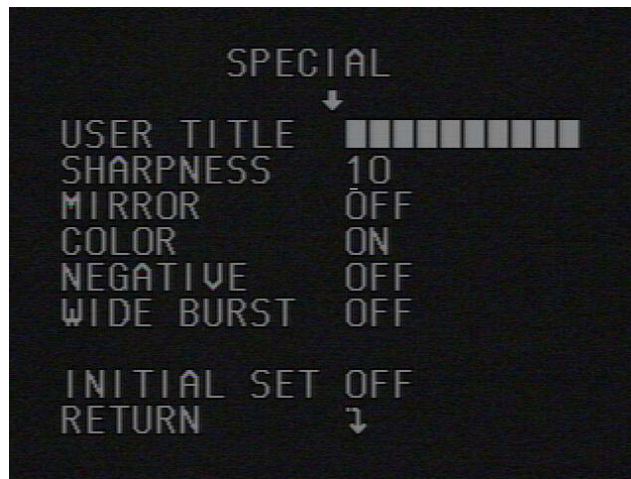
❑ Auto Exposure (AE) Menu:

Auto Exposure Menu



❑ Special Functions (SPECIAL) Menu:

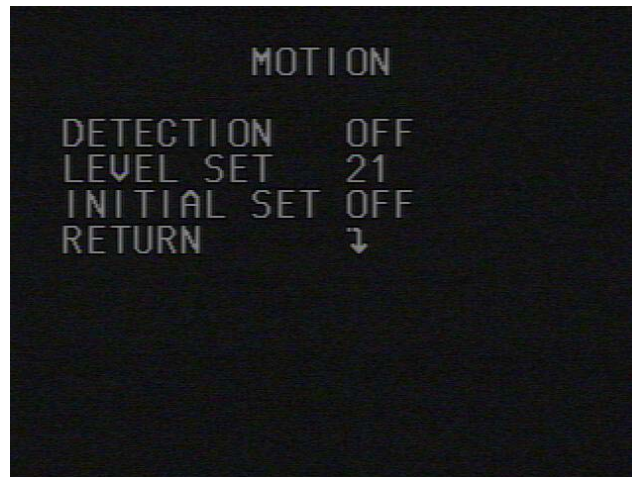
Special Functions Menu



Menu of Cam (continued)

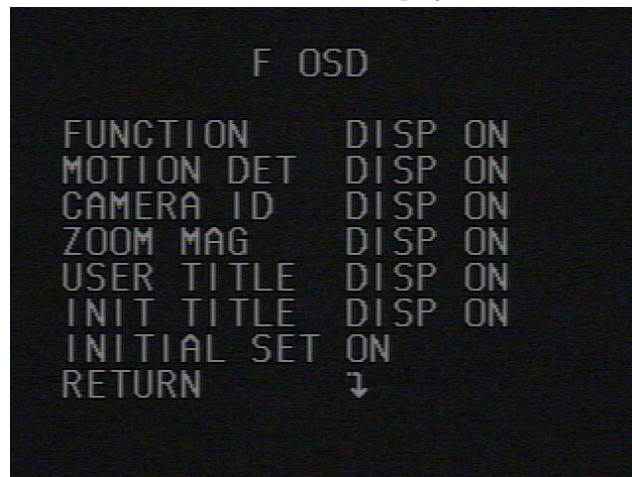
❑ Motion Detection (MOTION DET) Menu:

Motion Detection Menu



❑ Function On Screen Display (F OSD) Menu:

Function On Screen Display Menu



Control Setup

CONTROL SETUP	
1.AUTO FILP	ON
2.ALARM	ON
3.PRESET PIC	MOVE
4.HOME OPTION	
5.RETURN	

Menu Option	Description
AUTO FLIP	Enable/Disable automatic 180° flip of PTZ camera
ALARM	Alarms ON/OFF – See page 31 for more information
PRESET PIC	Not Available
HOME OPTION	Enters the Auto Home Feature Submenu (See Below)
RETURN	Return to Main Menu

HOME OPTION	
1.AUTO HOME	ON
2.HOME POS	01
3.DWELL TIME	05 MIN
4.RETURN	

Menu Option	Description
AUTO HOME	Enable/Disable Auto Home feature. When the camera has a period of no movement, the Auto Home feature can automatically move to a preset position, resume last tour state, or run Patrol 1.
HOME POS	01 – 50: Set the Auto Home to move to a preset (1-50) RESTORE: Set the Auto Home to resume the last tour state PATROL1: Set the Auto Home to run Patrol 1
DWELL TIME	Period of time of no activity before Auto Home feature activates
RETURN	Return to Control Setup Menu

Program Setup

PROGRAM	
1.	AUTO PAN START POS
2.	AUTO PAN END POS
3.	RUN AUTO PAN SLOW
4.	SET TITLE 01
5.	SET PATROL 01
6.	RUN PATROL 01
7.	RECORD PATTERN
8.	RUN PATTERN
9.	RETURN

Menu Option	Description
AUTO PAN START POS	Sets the start position of the Auto Pan feature. Select this option by pressing OPEN (iris open), move to the desired start position, press CLOSE (iris close) to save and return.
AUTO PAN END POS	Sets the end position of the Auto Pan feature. Select this option by pressing OPEN (iris open), move to the desired end position, press CLOSE (iris close) to save and return.
RUN AUTO PAN	Runs the Auto Pan (Start and End positions above must be set). If Start and End positions are the same, the camera will continuously scan 360°. The speed of the auto scan has six modes: FAST / NORMAL / SLOW / -FAST / -NORMAL / -SLOW. The first 3 modes scan from start point to end point less than 180°, while the last 3 modes scan from point to point greater than 180° (essentially reversing the direction of the scanning).
SET TITLE	Sets the Title of presets 1-63. Select preset number by PAN LEFT / PAN RIGHT, press OPEN (iris open) to edit. PAN LEFT / PAN RIGHT to move cursor, TILT UP / TILT DOWN to modify data. Press CLOSE (iris close) to exit edit state and save. 8 characters max. 1st character must be 0-9 or A-Z, otherwise title will delete.
SET PATROL	Setup for the 6 available Patrols or Tours, see page 30 for submenu
RUN PATROL	Run the specified Patrol
RECORD PATTERN	Record a pattern up to 40 seconds consisting of pan/tilt/zoom commands. Press Close or wait for 40 seconds to expire to save the recorded pattern
RUN PATTERN	Runs the Recorded Pattern set above
RETURN	Return to Main Menu

Set Patrol submenu

Patrol setup allows the configuration of the six available tours. To enter Patrol Setup, see the previous page. Each patrol or tour allows the camera to scan from a subset of preset positions with variable speeds and delay for each position. Presets must be set before configuring the Patrols.

PAN LEFT / PAN RIGHT: Moves the cursor

TILT UP / TILT DOWN: Edits data

NO: Position number. Up to 16 positions can be set. Two positions per line.

Positions 02, 04, 06, etc are not labeled on the display.

POS: Preset being called. In the below example, the first position the camera will move is preset 01, the next position is preset 02, the following position is preset 03, the final position is preset 04, then back to preset 1 and continuing indefinitely.

SP: The speed at which the camera moves from the first position to the next. 0-8. 00 and 01 are the same speed (MAX), 08 is the slowest speed.

TM: Dwelling time or delay before moving to next position. 0-99 seconds.

Press CLOSE (iris close) to save and exit.

NO	POS	SP	TM	POS	SP	TM
01	001	01	01	002	01	01
03	003	01	01	004	01	01
05	---	---	---	---	---	---
07	---	---	---	---	---	---
09	---	---	---	---	---	---
11	---	---	---	---	---	---
13	---	---	---	---	---	---
15	---	---	---	---	---	---
SEQ:01			CLOSE:EXIT			

NO – Position number
 POS – Preset being called
 SP – Leaving Speed to next preset
 TM – Dwelling time

After entering the Set Patrol option from the Program main menu, the user will see this screen. There are two positions per line, with max 16 positions per patrol.

SEQ:01 - Notifies user that they are modifying Patrol 1.

CLOSE:EXIT – Push CLOSE (iris close) to save and exit.

Shortcut Commands

Some features of this camera can be accessed by calling and setting specified presets or using the KCT-100 or KCT-2500 keyboard joystick controllers.

❑ Camera Reboot:

The CAMERA REBOOT feature allows you to reboot the camera remotely.

- KCT-100: [MENU] + [0] + [OFF]
Ex: To reboot the camera, simply press MENU, then 0, then OFF
- KCT-2500: [F1] + [0] + [OFF]
Ex: To reboot the camera, simply press F1, then 0, then OFF

** This does not reboot the entire PTZ, only the camera module within the PTZ housing.

❑ Back Light Compensation:

Back Light Compensation allows the camera to compensate for bright lights in the picture. You can set the BLC ON or OFF manually by using the method below or by setting the BLC to AUTO in the OSD (On Screen Display).

- KCT-100: [MENU] + [1] + [ON/OFF]
Ex: To enable BLC, simply press MENU, then 1, then ON
- KCT-2500: [F1] + [1] + [ON/OFF]
Ex: To enable BLC, simply press F1, then 1, then ON

❑ Digital Zoom:

Digital Zoom allows the camera to zoom further than the optical limit of the camera by digitally enhancing the image. The digital zoom function turns this feature on and off and can also be changed in the OSD.

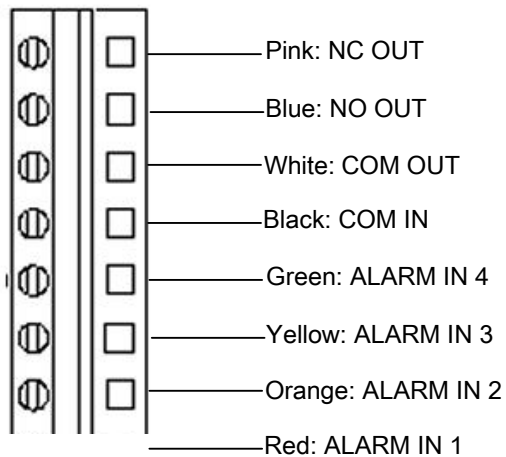
- KCT-100: [MENU] + [4] + [ON/OFF]
Ex: To enable Digital Zoom, simply press MENU, then 4, then ON
- KCT-2500: [F1] + [4] + [ON/OFF]
Ex: To enable Digital Zoom, simply press F1, then 4, then ON

Alarm Function

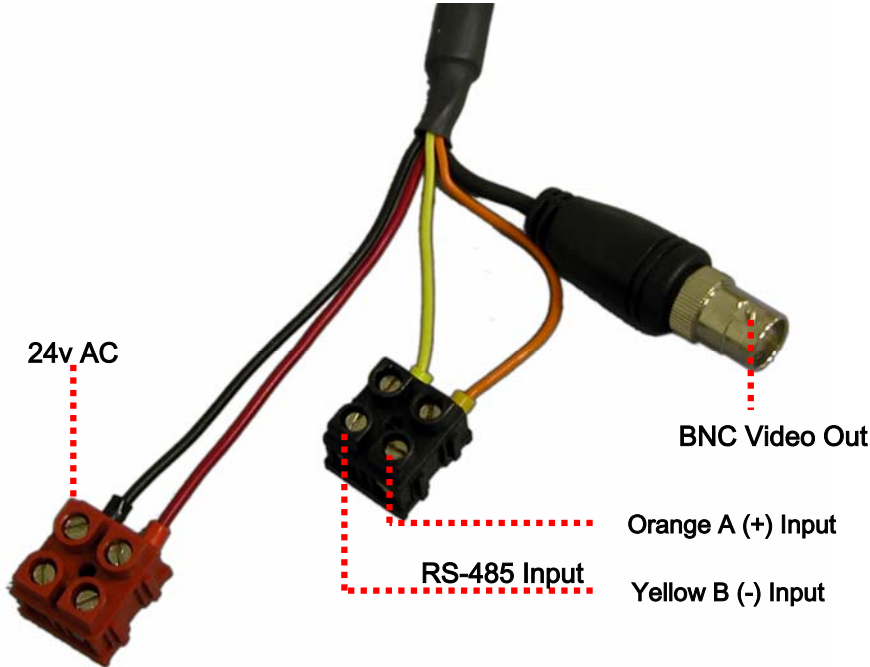
The ACD-2500S-LG27 supports external alarm triggering. Upon receiving an alarm from an external sensor, the camera can be configured to move to a preset position. The camera supports 4 alarm inputs and one alarm output.

- Triggering ALARM 1 will move the camera to preset 29
- Triggering ALARM2 will move the camera to preset 30
- Triggering ALARM3 will move the camera to preset 31
- Triggering ALARM4 will move the camera to preset 32

**The presets above must be set prior to enabling alarms. See page for 28 to enable this alarm feature.



❑ Wiring:



❑ 24v AC Terminal



- Screw Terminal Power connector:
24v AC wired directly to this plug.

❑ BNC Connector for Video Out



- Video out BNC connector
Connect to units such as monitor, DVR, VCR and etc.

❑ RS-485 Communication Terminal

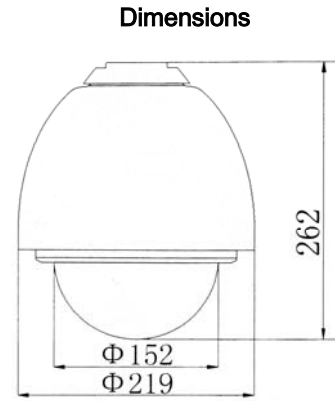


- RS-485 Communication Screw Terminal

Connector	Signal
A	+ Input
B	- Input

ACD-2500S-LG27 Specification

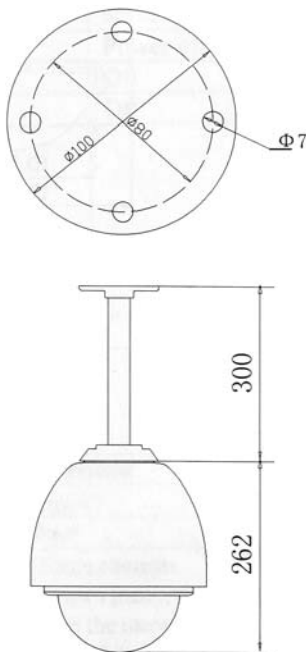
Model		ACD-2500S-LG27
Video Format		NTSC
Camera	Device	1/4" Color CCD
	Total Pixel	410K pixels 811(H) × 508(V)
	H. Resolution	More than 480 TV Lines
	Min. Illuminance	1.0 Lux
	Focus	Auto/Manual
	Iris	Auto/Manual
Lens	Zoom	27x Optical Zoom, 10x Digital Zoom, Total 270x Zoom
	Aperture	F1.6
	Focal Length	f=3.9 ~ 85.8mm
Pan/Tilt	Angle	Pan 360° (Endless) / Tilt : 0~90°
	Pan Speed	Variable 0° to 300°/sec (Zoom Proportional)
	Tilt Speed	Variable 0° to 120°/sec (Zoom Proportional)
	Presets	128 Programmable Presets
	Auto Cruise	6 Programmable Cruise Sequences
	Auto Pan	Programmable Start, Stop and Speed
	Pattern	40 Sec.
	General	Control
	Communication	Pelco-D, Pelco-P, B01, Santachi, Longcomity, Hunda600, Neon, Panasonic, Lilin, Vicon, Molyntx, Kalatel, VCL, ALEC, Ultrak
	Power	AC 24V / 1.25A
	Power Consumption	30VA (w/ fan and heater)
	Dimension	219∅ × 262(H) mm
	Weight	8.6lbs
	Operating Temp.	-31°F ~ 131°F



* Specification & design are subject to change without notice

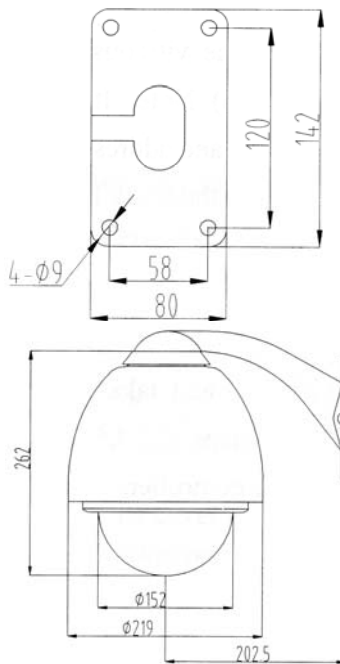
Ceiling Mount

Dimensions



Wall Mount

Dimensions





Cleaning of Dome Cover

To obtain constant clear videos, user should clean the dome cover periodically.

- Be cautious when cleaning. Hold the dome cover ring only to avoid direct touch to the acrylic dome cover. The acid sweat mark of fingerprint will corrode the coating of dome cover and scratch on dome cover will cause vague images.
- Use soft dry cloth or the substitute to clean the inner and outer surfaces.
- For hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.

Wire Diameter and Transmission Distance Comparison Chart

Distance (Feet) Power [VA]	Wire diameter (mm)			
	0.8000	1.000	1.250	2.000
10	283 (86)	451 (137)	716 (218)	1811 (551)
20	141 (42)	225 (68)	358 (109)	905 (275)
30	94 (28)	150 (45)	238 (72)	603 (183)
40	70 (21)	112 (34)	179 (54)	452 (137)
50	56 (17)	90 (27)	143 (43)	362 (110)
60	47 (14)	75 (22)	119 (36)	301 (91)
70	40 (12)	64 (19)	102 (31)	258 (78)
80	35 (10)	56 (17)	89 (27)	226 (68)
90	31 (9)	50 (15)	79 (24)	201 (61)
100	28 (8)	45 (13)	71 (21)	181 (55)
110	25 (7)	41 (12)	65 (19)	164 (49)
120	23 (7)	37 (11)	59 (17)	150 (45)
130	21 (6)	34 (10)	55 (16)	139 (42)
140	20 (6)	32 (9)	51 (15)	129 (39)
150	18 (5)	30 (9)	47 (14)	120 (36)
160	17 (5)	28 (8)	44 (13)	113 (34)
170	16 (4)	26 (7)	42 (12)	106 (32)
180	15 (4)	25 (7)	39 (11)	100 (30)
190	14 (4)	23 (7)	37 (11)	95 (28)
200	14 (4)	22 (6)	35 (10)	90 (27)

Wire Gauge Conversion Chart

Bare wire diameter (mm)	AWG (Approximate)	SWG (Approximate)	Bare wire cross sectional area (mm ²)
0.050	43	47	0.00196
0.060	42	46	0.00283
0.070	41	45	0.00385
0.080	40	44	0.00503
0.090	39	43	0.00636
0.100	38	42	0.00785
0.110	37	41	0.00950
0.130	36	39	0.01327
0.140	35		0.01539
0.160	34	37	0.02011
0.180	33		0.02545
0.200	32	35	0.03142
0.230	31		0.04115
0.250	30	33	0.04909
0.290	29	31	0.06605
0.330	28	30	0.08553
0.350	27	29	0.09621
0.400	26	28	0.1237
0.450	25		0.1602
0.560	24	24	0.2463
0.600	23	23	0.2827
0.710	22	22	0.3958
0.750	21		0.4417
0.800	20	21	0.5027
0.900	19	20	0.6362
1.000	18	19	0.7854
1.250	16	18	1.2266
1.500	15		1.7665
2.000	12	14	3.1420
2.500			4.9080