

weatherproof color cameras

digital video

time lapse recording

covert cameras

DIY technology

home surveillance

video over LAN

quad processors

underwater cameras

night vision

dome cameras

video over internet

pan & tilt cameras

event recording

housings

16 camera multiplexed systems

accessories

system adapters

business surveillance

convenience store cameras

hidden surveillance

960 hour time lapse

color quad systems

# security labs

introducing our new  
**digital video recorders**

**SLD230M**  
High Performance Compact DVR !



**SLD240**  
High Capacity Internet Ready DVR !



**VIDEO SECURITY CATALOG**  
**# 102**

# security labs



**Security Labs** has earned a reputation for being a leader of innovation in the CCTV security industry by introducing products that have brought about change in the video security market. We have also been a **designer and manufacturer** of products for other CCTV manufacturers for many years and have a track record as an 'answers' company.

We have made a dramatic impact in do it yourself (DIY) surveillance. **Security Labs** is a technology company and responds quickly to the ever changing surveillance industry. Our newly introduced products reflect today's customer needs.

We have designed our recorders, cameras, and monitors with a particular goal in mind: ease of installation and use. We feel that a CCTV system should be as easy to install and operate as any other electronic consumer product you may purchase. You will find our products include everything you need for plug and play operation. Our cameras and other products have connectors that are common in the consumer electronics industry and come supplied with the cables, power adapters, and mounting hardware you will need to complete the installation. Should you have questions before or after your **Security Labs** purchase, feel free to call our toll free Customer Support Line at **1-800-774-0284**.

## Catalog Index

<b>Product</b>	<b>Page(s)</b>
<b>Digital, time lapse &amp; event recorders</b>	<b>1</b>
<b>Quads, monitors, &amp; multiplexers</b>	<b>2</b>
<b>CCTV cameras</b>	<b>3</b>
<b>CCTV, covert, &amp; board cameras</b>	<b>4, 5</b>
<b>Camera housings</b>	<b>5</b>
<b>Suggested surveillance systems</b>	<b>6, 7</b>
<b>Accessories, lenses, &amp; cables</b>	<b>8</b>
<b>CCTV reference guide</b>	<b>9</b>

## Digital video recorders (DVR) - expand your surveillance system with the newest technology

**DVR's** eliminate the need for video tape and dramatically decrease review and search time. Additional advantages over tape recording are higher resolution video, longer recording duration, and features such as viewing your surveillance cameras over a LAN or WAN (internet). Unlike computer (PC) based digital recorders, "Stand alone" DVR's (below) recover automatically from a power loss and return to their original operating mode.

**SLD240** This professionally featured half size chassis (only 9" wide) is a drop in replacement for a time lapse recorder. 11 recording speeds from 60 fields (images) per second to one field every 8 seconds. Video from a camera or multiplexer is recorded onto the internally mounted 80 GB hard drive. Record from a trigger input for alarm (event) recording, or program the DVR to record at a specific time. Loop recording allows the DVR to continue recording after the hard drive is full. Built in video motion detection for event recording. Four image (compression) settings allow the user to adjust individual recording preferences. The maximum record time (until the hard drive is full) is over 4,400 hours at the highest image quality setting. Front panel jog-shuttle, full screen playback, freeze frame, and playback speeds up to 100x allow for fast scan of video. One channel audio recording. Front panel Secure Digital (SD) card slot and removable tray for optional hot swapable second hard drive for video archiving. View live images, playback, and control the DVR over a local area network (LAN) via the RJ45 10M/100M ethernet connection. **The SLD240 DVR may also be viewed, played back, and controlled over the internet** when the DVR is connected to a cable or DSL connection. View with Internet Explorer (web browser) or with supplied software. Includes 12V power supply.

**SLD230M** Extremely compact and high performance, this DVR is built on a shock resistant and anti-vibration chassis. A 30 GB internal hard drive will record display resolution at 720 x 420 (full screen). Selectable recording resolutions of 720x480 or 360x240 and three image (compression) settings. Recording options include continuous, scheduled, and loop. Built in video motion detection eliminates the need for an external motion detection sensor - the DVR can be programmed to start recording at the instant the camera detects motion. This DVR records up to 15 fields (images) per second and provides a high resolution playback. Up to 400 hours of video (highest image quality setting) is available before the hard drive is full. Loop recording allows the DVR to continue recording after the hard drive is full. Ideal for mobile, transit, and all business applications. Only 7"W x 2"H x 9"D. Includes 12V power supply.

**SLD240: INTERNET Ready DVR**  
VIEW and control your DVR  
with your PC - at the office or world wide !



Digital Video Recorder w/ LAN  
Model SLD240



Compact Digital Video Recorder  
Model SLD230M

## Time lapse recording - up to 40 days on one tape

**Security Labs Time Lapse Recorders:** All models of our time lapse recorders feature high resolution playback (350 lines B/W, 300 lines color) and a host of programming features. Terminals on the back of the VCR connect any switch (door contacts, PIR, alarm panel output, etc.) to activate alarm recording for unattended use. Connection terminals have programmable inputs and outputs. Programmable daily or weekly timer panic, and loop recording. Time/date, frame counter, and selectable on screen message can be set to appear in four different locations. Switchable VNF (video noise filter) enables the user to obtain the best possible picture. A mic input is provided on the rear terminal panel. Power loss and alarm time log memory alert the user to unattended events. Alarm recording times are: 20s, 60s, 90s, 2min, 3min, 5min, 10min, 15min, 20min, 25min, and 30min. Super quick start record will initiate the recording mode (from power off) in less than two seconds. The clock operation is backed up to retain time in the event of a power loss. End of tape and series recording output allow the use of multiple recorders. Includes IR remote for easy on screen programming. Automatic or manual configuration SW output for connection to a multiplexer for noiseless image switching. Both models have a commercial ball bearing capstan motor, a diamond like coating (DLC) video head, and a free voltage power supply (90 to 240 VAC 50/60 Hz). SL830 PRO includes software and a built in 9 pin serial port (RS-232) for controlling the VCR via a Windows OS computer. Each VCR is approx 9 lbs. and has dimensions of 14"W x 3.25"H x 11.5"D. Models below have features listed above, plus those listed after the model number.

**SL720** 24 Hour Real Time / 48 Hour Time Lapse. Record speeds: 2H, 6H, 18H, 24H, 36H, 48H.

**SL820** 24 Hour Real Time / 960 Hour Time Lapse. Record speeds: 2H, 6H, 18H, 24H, 36H, 48H, 72H, 96H, 120H, 168H, 240H, 360H, 480H, 720H, 960H

**SL830 PRO** Additional features include forward and reverse digital shuttle and RS-232 PC communication. 40 Hour Real Time / 960 Hour Time Lapse. Record speeds: 2H, 6H, 18H, 30H, 48H, 72H, 96H, 120H, 168H, 240H, 360H, 480H, 720H, 960H



**SL720**  
24H Real Time  
48H Time Lapse



**SL820**  
24H Real Time  
960H Time Lapse



**SL830 PRO**  
40H Real Time  
960H Time Lapse  
with RS-232 and digital shuttle

## Record continuously or only when events occur

**SL611 Real Time Eight Hour Event Recorder.** This is the industry leader in features and performance.

All recordings have time, date and frame counter for possible court verification. Normally open and closed event trigger inputs with 62 selectable event times. The SL611 can automatically record when activity occurs in your business or home. Compatible with door switches, passive infrared (PIR), and other detectors. 10 selectable preprogrammed recording times. Auto-power on when triggered. LOOP recording enables unattended around the clock recording. Three end of tape options: REW/Standby, REW/Eject, or REW/Record. 20 character on screen message / title with selectable placement. 30 day power out backup for time and date stamp. 8 hours of real time recording (full 30 frames/sec.) with a T-160 tape. Four video heads for noiseless slow motion playback and pause. End of tape contacts to trigger another recorder or alarm. User friendly programming via remote control. Compatible with cameras, monitors, and quad monitors. 110VAC. Record while you are away!

8 Hour Event Recorder  
Model SL611



**SLM419 B/W 12" Quad Monitor System** The new SLM419 allows complete control over your surveillance monitoring. Ideal for factory, office or residential use. Includes one SLC-143 weatherproof B/W camera w/ audio and 50' of cable. View four cameras at once, or rotate through each in full screen mode automatically. Has extra AV output for remote monitor use. The SLM419 can monitor any Security Labs recorder so that the recorder status/time & date can be viewed. A sensitive condenser mic provides for clear audio monitoring. Inside the camera is a speaker for a two way audio intercom to the monitor (listen & talk to the camera). Built in infrared illumination in camera to help see in totally dark conditions. Monitor has an alarm feature when used with the SLC-143 and its PIR. Alarm feature can turn monitor on, signal audible alert, and change to a specific camera when motion is detected. Alarm outputs for triggering recorder or other device. Accessory camera cables come in lengths up to 328' for long connections to a remote camera.



TALK & LISTEN TO THE CAMERA (INTERCOM)

**SLC-143** Additional camera(s) for this quad (as shown) with IR, PIR, & intercom..  
**SLA30** Six pin DIN to dual RCA adapter for connecting any composite video camera (with audio) to the SLM419.



**SLM418C Color Quad Monitor w/ Motorized Pan & Tilt Dome Camera.** This feature packed system has controls on the front panel and IR remote to operate the motorized 360 degree pan and 90 degree tilt dome camera. On screen time and date with individual camera titling. The rear connection panel has inputs for both the six pin mini-DIN Security Labs cameras as well as BNC inputs. Alarm inputs will accept motion detection devices for alarming the monitor to full screen. Alarms will also activate the internal digital storage function where up to 12 frames of video can be stored for quick event verification. Selectable VCR output for quad or live monitor recording. Displays include full screen, quad, and picture in picture. Security lock and video loss alarm. Auto sequencing with adjustable dwell time. Audio input with volume control. **Includes one SLC-148C pan and tilt dome camera and 65' cable.** 100 to 240 VAC, 50/60 Hz.

**SLC148C** Additional color motorized pan and tilt dome cameras for the SLM418C. Includes 65' of cable and mounting hardware. Up to three additional cameras can be added (four total). **A maximum limit of 200' of cable can be used with each SLC-148C camera.** See page 5 for weatherproof dome housings.

DIGITAL FRAME STORAGE!



**SLM411 High Resolution 12" B/W Monitor with Audio.** Compatible with security recorders and composite video cameras. BNC video input and output (two BNC to RCA adapters included), impedance HI/LOW switch. Resolution of 1,000 lines at center for sharp image monitoring. Ideal for primary or call monitor in any application. Automatic NTSC/PAL detection and 90 to 240VAC, 50/60 Hz power supply.



**SLM412C Commercial Grade 14" Color Monitor with Audio.** Compatible with security recorders and composite video cameras. BNC video input and output (two BNC to RCA adapters included), impedance HI/LOW switch. 420 lines of resolution. Automatic NTSC - PAL detection and 100 to 240VAC, 50/60 Hz power supply.

**SLX910 Color Quad Processor.** Full duplex real time color quad operation with built in color bar generator and auto sequencer. Individual camera titling, time date generator, and user friendly on screen menus. Signal loss detection with freeze and 2X zoom functions. Adaptive comb filtering produces sharp images. View all four cameras simultaneously! Automatic NTSC/PAL detection. 12VDC, includes power supply. Add four color cameras and a color monitor.



**SLX950 Color 16 Camera Triplex Multiplexer** allows the user to review a recorded tape, watch live cameras, and record at the same time. Smart video motion detection with alarm condition. Up to 16 cameras can be connected and viewed simultaneously. On screen menu programming and optional RS485 control port. Zoom control for detailed viewing of any image. Time and date on screen, call monitor output, video motion detection, and video loss detection. SW input for time lapse VCRs and DVRs. Includes power supply.



**SLC-115** B/W camera with 420 lines of resolution. Switchable electronic shutter with a 4mm wide angle lens. 1/4" x 20 universal mount. Red power LED. Sensitive condenser mic w/ audio. Use with any AV compatible monitor, TV, or recorder. Includes 12VDC adapter, 360 degree swivel bracket, mounting hardware, and 50' of audio/video/power cable.



**! EVERYTHING IS IN THE BOX !**  
Security Labs' cameras include an installation kit with a wide angle lens, bracket, power adapter, 50' or more of cable, & mounting hardware.

**SLC-110** Rugged steel case camera (1.5" x 1.5" x 2" cube) with standard 1/4" mounting holes on top and bottom. 4mm wide angle lens. Sensitive condenser mic inside w/ audio output. 420 lines resolution. Use with any AV compatible monitor, TV, or recorder. Includes 12VDC adapter, 360 degree swivel bracket, mounting hardware, and 50' of audio/video/power cable.



**SLC-120** Color camera with 420 lines of resolution. Switchable back light compensation and electronic shutter. 4mm wide angle lens. 1/4" x 20 universal mount. Red power LED. Sensitive condenser mic w/ audio. Use with any AV compatible monitor, TV, or recorder. Includes 12VDC adapter, 360 degree swivel bracket, mounting hardware, and 50' of audio/video/power cable.



**SLC-142 (B/W)**  
**SLC-142C (color)**

**WEATHERPROOF CAMERAS**  
with  
**PIR, IR, MIC, & SPEAKER**  
B/W or COLOR



**SLC-143 (B/W)**  
**SLC-143C (color)**

**Weatherproof outdoor** wide angle view cameras with a built in motion detecting PIR, infrared emitters (IR), and a sensitive condenser mic. The speaker inside the cameras are for a two way intercom (talk & listen to the camera) when used with the SLM419 or SLM418C quad monitors. B/W models have 380 lines of resolution and color models have 330 lines. B/W models have IR LEDs, and can see in total darkness up to 10' away. Adjustable pan and tilt mount. Use with any AV compatible monitor, TV, or recorder. These cameras plug directly into the SLM419 B/W Quad Monitor or SLM418C Color Quad Monitor and will alarm the monitor or any Security Labs recorder when motion is detected. Size: 5"H x 2.5"W x 2.5"D, 12VDC. B/W models are also compatible with the SLM416 & SLM417 quad monitors. Includes 12VDC adapter, BNC to RCA adapter, universal adapter (for connecting audio, video, PIR, and power to any monitor or recorder), mounting hardware, ceiling mount bracket, and 50' of cable (all connections in one cable).

**BLACK & WHITE MODELS**

**SLC-142** Black case, B/W weatherproof camera w/ IR, PIR, and intercom.

**SLC-143** Ivory case, B/W weatherproof camera w/ IR, PIR, and intercom.

**COLOR MODELS**

**SLC-142C** Black case, color weatherproof camera w/ PIR and intercom.

**SLC-143C** Ivory case, color weatherproof camera w/ PIR and intercom.



**SLK-150C** Color motorized dome camera (SLC-148C) in a kit with a remote controlled pan and tilt controller. Camera has greater than 330 lines of resolution. Up to three additional SLC-148C cameras may be added (4 inputs total). Cameras are viewed one at a time. Audio and video output on controller connects to any color composite monitor or TV. Includes power supply, color dome camera, 65' of cable, controller, and remote.

**? How does IR work?**  
**How does a PIR detect motion?**  
**See page 9**



**SLC-1041** Mini B/W wide angle view camera in a smoked dome. Adjustable pan and tilt. 420 lines of resolution. Includes 12VDC adapter, mounting hardware, and 50' of video/power cable.



How much will I be able to see with my camera?

See page 9



**SLC-138C** Weatherproof outdoor color day-night camera with a wide angle view lens. During low light conditions, the camera automatically changes from color to black and white for enhanced contrast and image detail. Built in infrared illumination (IR) also automatically turns on for viewing in total darkness. This rugged camera is only 2.5"H x 2.5"W x 3.5"D and has a heavy gauge aluminum body. Ideal for residential, commercial, and mobile rear vision applications. Use with any AV compatible monitor, TV, or recorder. 380 lines of resolution. Includes 12VDC adapter, 50' of video/power cable, mounting hardware, and swivel bracket.

**SLC-131** Waterproof outdoor B/W CCD camera with a 3.6mm lens for a wide angle view. Built in infrared illumination (IR) for viewing in total darkness. Ideal for surveillance or underwater viewing in pitch dark areas. Compact, high performance bullet camera. Use with any AV compatible monitor, TV, or recorder. 400 lines of resolution, .1 LUX (without IR), 1.5" dia barrel x 2" long. Includes 12VDC adapter, 65' of video/power cable, mounting hardware, and swivel bracket.

**WATERPROOF TO 90' DEPTH**



**SLC-1036** This covert camera has a Passive Infrared Detector (PIR) to automatically trigger your Security Labs recorder when movement is detected. Camera has a wide angle prefocused lens (5mm). 420 lines of resolution. Includes 12VDC adapter, swivel bracket, mounting hardware, and 50' of video / power / PIR relay output cable.



**SLC-151C**  
Professional flush mount color camera for office or home



**SLC-151C** Looking for a high performance color camera that will blend in at the office or home? This flush mount camera has a stylish brushed aluminum bezel (3" in diameter) and protrudes only 1/2" from the ceiling. Adjustable inner ball camera can be rotated for a precise viewing angle. A Sony Super HAD CCD sensor with integrated DSP provides a sharp, clear image. Built in auto electronic shutter, white balance and automatic gain control. Use with any AV compatible monitor, TV, or recorder. 380 lines of resolution. Includes 12VDC adapter, 50' of video/power cable, and mounting hardware.



**SLC-1035** B/W wide angle view camera that resembles a smoke detector. 420 lines of resolution. Pre-focused lens views at a 45 degree angle from the ceiling. Ideal for home or business where covert viewing is required. 5.5" diameter. Includes 12VDC adapter and 50' of video/power cable.

**SLC-1035C** Same covert camera in COLOR w/ CCD imager and 380 lines.



**SLC-1037** An ideal covert camera for business, office, or home. Clock has quartz movement and runs on one "AA" cell (included). Camera has high resolution (420 lines) w/ a wide angle pin hole lens. **Extremely covert, even at close range.** 9" diameter. Includes 12VDC adapter and 50' of video/power cable.

**SLC-1037C** Same clock camera in COLOR w/ CCD imager and 380 lines.



**SLC-130S**



**SLC-130B**

**SLC-130B** Weatherproof outdoor or indoor camera with a black aluminum body. 3.6mm lens for a wide angle view. Small enough to hide almost anywhere. Use with any AV compatible monitor, TV, or recorder. 1" diameter tube x 3" long. Includes 12VDC adapter, 50' of video/power cable, mounting hardware, and swivel bracket.

**SLC-130S** Same outdoor camera in silver.

**SLC-134C** Waterproof outdoor color CCD camera with a 3.6mm lens for a wide angle view. Compact, high performance bullet camera that incorporates a Sony Super HAD imager. Use with any AV compatible monitor, TV, or recorder. 330 lines of resolution, 1 LUX, 1" dia barrel x 3.75" long. Includes 12VDC adapter, 65' of cable, and mounting bracket.



**WATERPROOF TO 90' DEPTH**

### CCD Board Cameras



8mm or 12mm lens  
B/W CCD board cameras

**SLC-1027** This board camera has a telephoto 12mm lens for close up covert surveillance, manual focus lens and 420 lines of resolution. Includes a 12VDC adapter and 50' of video/power cable.

**SLC-1026** Same as the SLC127 w/ an 8mm normal view lens.



B/W or COLOR  
Pinhole lens  
board camera

**SLC-1025** This B/W CCD pin hole wide angle (5mm) lens board camera is ideal for mounting inside another object for covert surveillance. Includes a 12VDC adapter and 50' of video /power cable.

**SLC-1025C** Same camera but with a color CMOS imager and 380 lines.



The SLC-129 & SLC-1025 pin hole lens cameras can view through a hole only 3/32" in diameter.

○ ← Actual size

### Ultra Miniature CMOS Cameras

World's smallest cameras! Security Labs **CMOS** cameras are ideal for any application where size, image quality, and power consumption are important. All CMOS cameras operate between 9 and 18 volts DC and consume an ultra low 30mA. Each camera includes a power adapter, swivel mount bracket, hardware, and a 50' video/power cable. Each CMOS camera is **only 1" x .5" x .5"** and weighs an incredibly low 1/2 ounce.



Shown  
Actual  
Size

B/W Miniature wide angle lens camera  
Model SLC-128; 380 lines / 3.6mm lens



Shown  
Actual  
Size

B/W Miniature pin hole lens camera  
Model SLC-129; 380 lines / 5mm lens



Color Miniature wide angle lens camera  
Model SLC-128C; 380 lines / 3.6mm lens

### Camera Housings



**SLH320** Weatherproof aluminum housing. Includes a heavy duty pan and tilt bracket for adjustable camera angles. Includes hardware (does not include camera). For use with SLC110, SLC115, SLC120 or any camera with a 1/4" x 20 standard mounting hole.

**SLH320HB** Heated version of the SLH320 (above). Heater and blower fan inside housing keep front camera window clear of frost and humidity. Heater and fan work automatically. Includes power supply with 50' of wire and mounting hardware.



SLB220



SLB221

#### Weatherproof Dome Mounts

These high quality mounting brackets protect the SLC-148C for use indoors or outdoors. Both the ceiling and wall mount styles include heavy duty stainless steel mounting hardware.

**SLB220** Ceiling mount bracket for the SLC-148C.

**SLB221** Wall mount bracket for the SLC-148C

## Economical black & white motion activated video security system



**1** Weatherproof B/W PIR/IR Camera w/ Audio  
SLC-142 (black)  
SLC-143 (ivory)  
(Page 3)



**2** 8 Hour Motion Activated Event Recorder  
SL611  
(Page 1)



**3** Use your own TV with standard AV connections



**4** 12" High Resolution B/W Monitor  
SLM411  
(Page 2)

(optional)

### ORDER SYSTEM COMPONENTS

- 1** SLC-143 Camera or SLC-143 Camera
- 2** SL611 Recorder
- 3** Use a TV w/ AV Inputs

#### Optional

- 4** SLM411 Monitor

All cameras are complete with cable, mount, hardware, & power supply.

A value packed, high quality system that will ease your mind that your property and loved ones are protected with video surveillance. Easily installed, this system can be set to record only when the camera detects motion, saving tape and reviewing time. Other features include loop recording (tape automatically rewinds and records again), time and date stamp on all recordings, programmed time recording, infrared illumination, audio recording, and one cable camera installation. The camera can mount indoors or outdoors from a wall or ceiling. The SL611 recorder uses standard VHS tapes. Protect your entry doors, driveway, garage, pool, or patio.

## Small business / larger residence video security system



**2** Weatherproof B/W PIR-IR Camera w/ Audio  
SLC-143  
(One supplied w/ monitor)  
(Page 2)



**3** Weatherproof B/W PIR-IR Camera w/ Audio  
SLC-143  
(Page 2)



**6** 24 / 48 Hour Time Lapse Recorder  
SL720  
(Page 1)



**1** 12" B/W Quad Monitor  
SLM419  
(Page 2)



**4** Weatherproof B/W PIR-IR Camera w/ Audio  
SLC-143  
(Page 2)



**5** Weatherproof B/W PIR-IR Camera w/ Audio  
SLC-143  
(Page 2)

### ORDER SYSTEM COMPONENTS

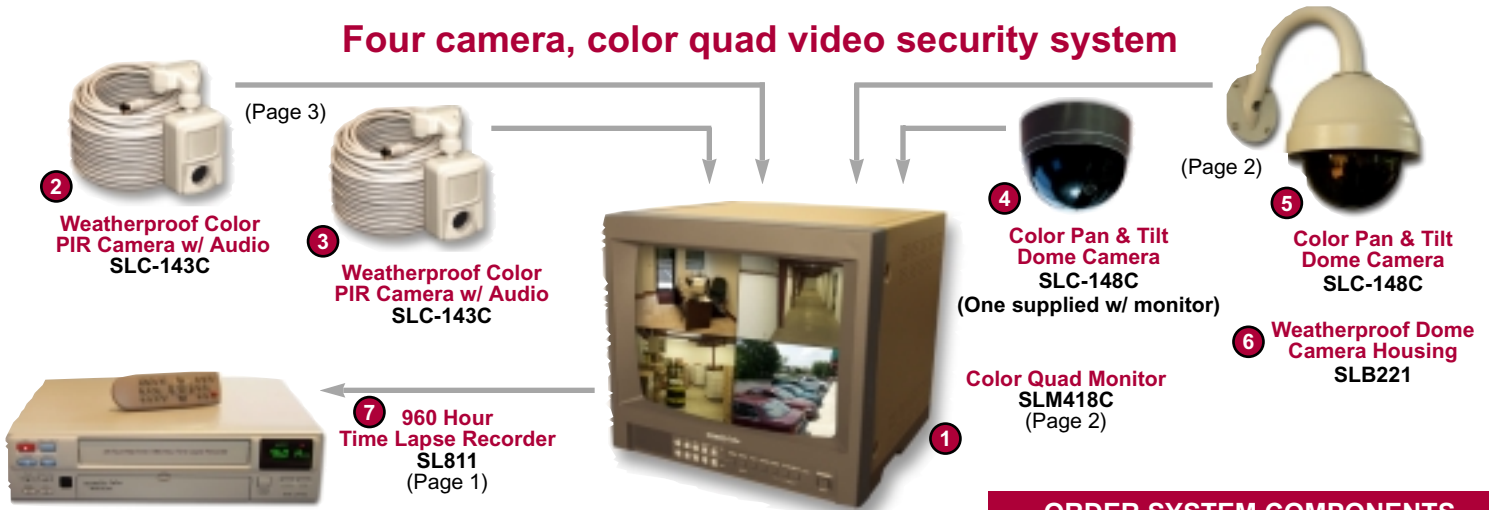
- 1** SLM419 Monitor
- 2** SLC-143 Camera
- 3** SLC-143 Camera
- 4** SLC-143 Camera
- 5** SLC-143 Camera
- 6** SL720 Recorder

All cameras are complete with cable, mount, hardware, & power supply.

Our most popular monitor and recorder make this system a hands down winner for business or residential use. The real time quad monitor delivers a crisp, high resolution image in both quad and full screen modes. Two way intercom feature allows the user to talk and listen to each camera, making it ideal for exterior door camera use. Sequential camera scanning with adjustable dwell time will rotate views thru each camera. Each of the SLC-143 weatherproof cameras are equipped with a PIR motion detector to alarm the monitor when movement occurs in front of the camera. This alarm can trigger the time lapse to turn on and record, or if the time lapse is already recording, to record at a higher frame rate. Need to see in low light? These cameras generate their own infrared light to see in total darkness! Highly effective up to 10' in front of the camera, entry doors, small rooms, and other important areas can be observed under any lighting conditions. One 50' cable connects each camera to the monitor (extensions available on page 8). Each camera has audio. The SL720 time lapse can record from 2 to 48 hours on one VHS tape and has real time recording in the 24 hour mode. Exceptional system for around the clock monitoring and recording, or only when events occur.



### Four camera, color quad video security system



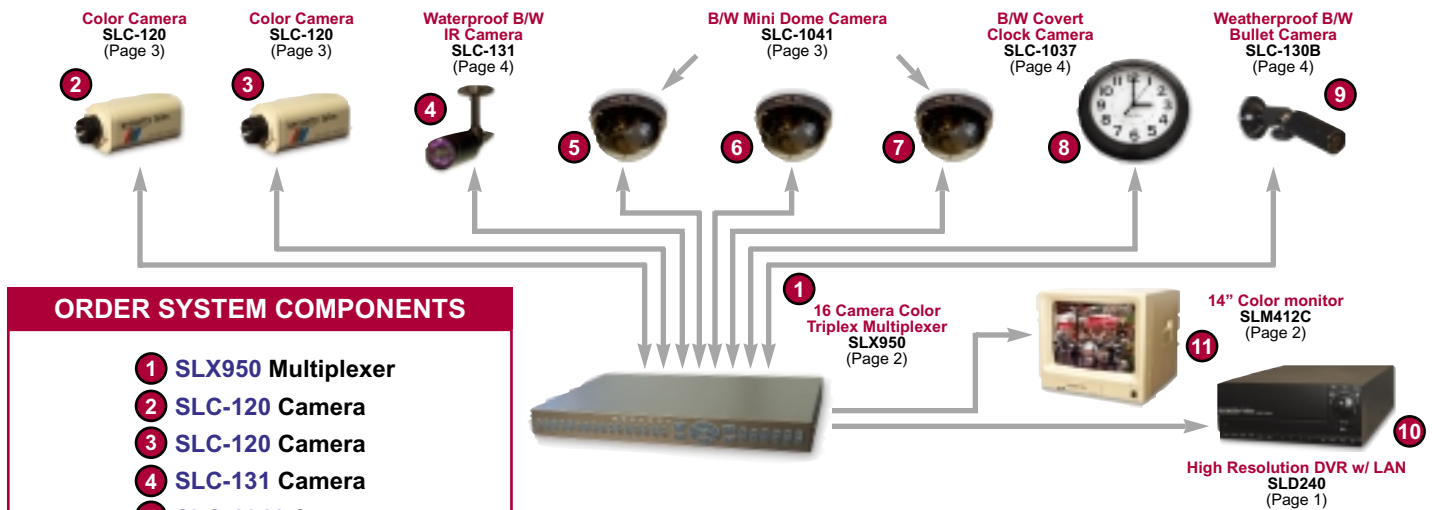
Exceptional image quality and a host of system features make this an ideal system for business use. Motorized pan & tilt controls are located on the front of the monitor (and on the supplied remote) for changing the viewing angle of the dome cameras. A weatherproof wall mount dome camera housing allows outdoor observation of entry ways, shipping docks, or parking lots. The two SLC-143C weatherproof PIR cameras can be set to alarm the monitor when motion is detected in front of the camera and enable the time lapse to alarm record at a higher capture rate. Two way intercom with each of the SLC-143C cameras. Alarm inputs/outputs, quad and live video outputs, and camera through connections. Digital frame storage (up to 12 frames of video) can be programmed to capture individual events or manually activated. All four cameras have audio. The time lapse can record from 2 to 960 hours (40 days) on one VHS tape. Loop, event, series, and time recording are easily programmed. The recorder has alarm and power loss logging.

#### ORDER SYSTEM COMPONENTS

- 1** SLM418C Monitor
- 2** SLM143C Camera
- 3** SLM143C Camera
- 4** SLC-148C Camera
- 5** SLC-148C Camera
- 6** SLB221 Housing
- 7** SL811 Recorder

All cameras are complete with cables, mounts, hardware, & power supplies.

### Eight camera (up to 16), professional video security system w/ remote viewing



#### ORDER SYSTEM COMPONENTS

- 1** SLX950 Multiplexer
- 2** SLC-120 Camera
- 3** SLC-120 Camera
- 4** SLC-131 Camera
- 5** SLC-1041 Camera
- 6** SLC-1041 Camera
- 7** SLC-1041 Camera
- 8** SLC-1037 Camera
- 9** SLC-130B Camera
- 10** SLD240 DVR
- 11** SLM412C Monitor

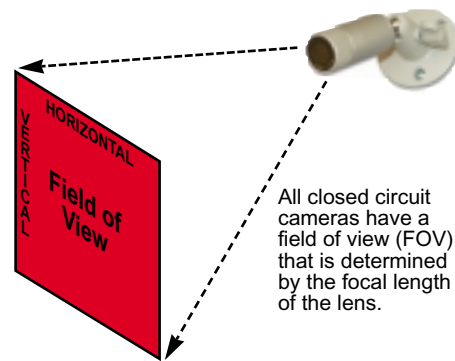
Change cameras, monitors, and recorders in this system for your application requirements. Add up to 16 cameras total with any combination from this catalog. All cameras are complete with cable, mount, hardware, & power supply.

Expandability and professional features make this system the choice for large scale CCTV requirements. See additional features of each component on the pages listed. The SLX950 multiplexer can handle both B/W and color cameras (up to 16 total) and has multiple viewing options keeping an eye on active cameras. With the DVR, up to 16 cameras can be recorded digitally in high resolution, regardless of how many cameras are currently selected for viewing. Multiplexing allows the user to playback any camera in full screen mode. Up to 16 cameras can be viewed at once. Video motion detection can be programmed into the multiplexer to detect motion from any camera image. Automatic SW output from the DVR to the multiplexer ensures noiseless, high quality playback. 'Call' monitor output for a second monitor. The DVR has an ethernet LAN connection for remote viewing over your LAN or internet (see page 1 for DVR details). If purchasing all black and white cameras for this system, choose a SLM411 12" B/W high resolution monitor (page 2).

## Camera Lenses

### CAMERA / LENS FOV Calculations (choosing the view you will see on the monitor)

For a simple explanation of FOV, see page 9. The chart below will give you a vertical and horizontal component for 4mm, 8mm, and 12mm lenses when mounted on a Security Labs 1/3" camera. For example, the camera needs to mount over a cash register and fill the monitor with a view that is approx. 2' vertically (V) and 3' horizontally (H) to record a tight view on cash transactions. The distance to the cash register from the camera is 8'. Your application requires a closer view than the 4mm wide angle lens supplied with a SLC-115 B/W CCTV camera. The lens choice in this example is a SLL175 (12mm) that will give you 2.5' V x 3' H view. The FOV can also be varied by moving the camera's mounting location. Security Labs cameras are supplied with a wide angle lens. Accessory lenses can be installed by the user.



DISTANCE FROM CAMERA	FOV 4mm (V x H)	FOV 8mm (V x H)	FOV 12mm (V x H)
5'	4.5' X 6'	2.2' X 3'	1.5' X 2'
8'	7' x 10'	3.6' x 4.8'	2.4' x 3.2'
12'	10.8' x 14.4'	5.4' x 7.2'	3.6' x 4.8'
15'	13.5' x 18'	6.8' x 9'	4.5' x 6'
20'	18' x 24'	9' x 12'	6' x 8'
25'	22.5' x 30'	11.3' x 15'	7.5' x 10'
30'	27' x 36'	13.5' x 18'	9' x 12'
35'	31.5' x 42'	15.8' x 21'	10.5' x 14'
40'	36' x 48'	18' x 24'	12' x 16'
45'	40.5' x 54'	20.3' x 27'	13.5' x 18'
50'	45' x 60'	22.5' x 30'	15' x 20'
75'	67.5 x 90'	33.8' x 45'	22.5' x 30'
100'	90' x 120'	45' x 60'	30' x 40'



#### Optional camera lenses:

- SLL160 Optional 8mm lens for SLC-110 and SLC-1041.
- SLL165 Optional 12mm lens for SLC-110 and SLC-1041.
- SLL170 Optional 8mm lens for SLC-115 and SLC-120.
- SLL175 Optional 12mm lens for SLC-115 and SLC-120.

## Cables & Adapters

### DIN Extension Cables for the SLM419 & SLM418C Quad Systems.

These cables are compatible with the following cameras: SLC-142, SLC-142C, SLC-143, SLC-143C, SLC-146, SLC-148C (200' limit w/ SLC-148C).

- SLA10 65' Video/Audio/Power DIN extension cable with coupler.
- SLA11 131' Video/Audio/Power DIN extension cable with coupler.
- SLA12 197' Video/Audio/Power DIN extension cable with coupler.
- SLA13 328' Video/Audio/Power DIN extension cable with coupler.

#### Other adapters and cables:

- SLA16 12VDC regulated power adapter for all SL cameras. 500 mA.w/ 2.1mm plug.
- SLA23 50' Video/Audio/Power cable for SL cameras not using a DIN connection.
- SLA24 50' Video/Power cable for SL cameras not using a DIN connection.
- SLA30 Adapter- Composite video / audio (RCA females) to mini SL-DIN connector. Allows any Security Labs camera to connect to the back of any Security Labs quad monitor.
- SLB210 6" 360 degree camera swivel bracket mount.
- SLB145CB SLC145 quad camera ceiling mount bracket.

**EXTENSION CABLES**  
up to 328'



Where can I get additional information?  
visit [www.security-labs.com](http://www.security-labs.com)

**Surveillance recorders & digital technology**

**Why Digital?**

During the last decade, microprocessor based (digital) technology has made major advances. Processors, hard drives, and computer memory are continuing to increase in speed and ability. In the surveillance industry, these advances have made it possible for recording digital video. A Digital Video Recorder (DVR) retrieves the video from a security camera, multiplexer, or other source, and converts the signal from analog to digital. The digitized video data is then compressed and stored on the DVR's

hard drive. Video compression (making the data size smaller) allows the digitized video to be stored efficiently. The process of storing the video data on the DVR hard drive is similar to the way your desk top computer stores a word processor or other data file. The file (video image) is 'marked' when stored so the user has quick access to it at a later time. Because the DVR operates like a computer, retrieval of data (video) is very fast. A search by event, time and date, or by camera, happens almost instantaneously. The resolution (image size) and quality (amount of compression) are features that can be set by the user and determine how large and how detailed the playback image is on the monitor. Setting the image for full screen playback with optimum detail requires the most data space on the hard drive and will lower the number of hours of video that can be stored before the hard drive is full. An "overwrite when full" feature assures the user that should the hard drive become full, the DVR will continue to record by writing over the oldest video first. Like time lapse recorders, DVRs can be set to record at different frame rates. The fastest any DVR or time lapse can record is 60 fields (images) per second. Setting the recorder to a much slower setting, for example, one image every 8

seconds, will greatly extend the total recording time. Like time lapse recorders, DVRs can also be set to event record when triggered by an external trigger such as a door contact, or by a preprogrammed schedule. Adjusting the DVR for the appropriate frame rate, image size, and compression is simplified with on screen menus. Advanced features (some models) allow you to connect to the DVR through the TCP/IP protocol in your desktop or laptop computer. The DVR can be connected to your office's local area network (LAN) and cameras can be viewed at your PC monitor. If your LAN is connected to a broadband internet connection (DSL or cable), the DVR connected to the LAN can be viewed from home via the internet.

**SLD230M Compact DVR**

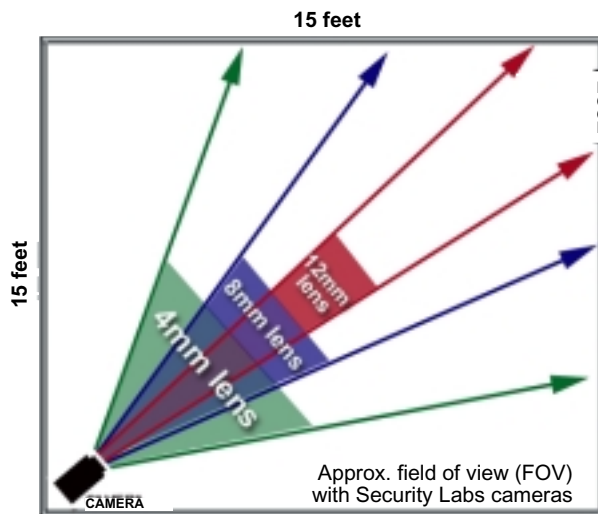


**SLD240 DVR with LAN**



**How much will the security camera see?**

The field of view (FOV) is based on the camera & lens. Security Labs cameras are supplied with a wide angle view lens. Wide angle lenses are suitable for most applications due to their ability to view a large area. A 4mm wide angle lens will be able to view an area 20' high x 26' wide at 21' away. As an example, a 15' x 15' room is shown in the diagram below. Observe that the 4mm lens (green arrows) allows better wide angle viewing coverage than the 12mm lens (red arrows).



See **LENSES** on page 8 for a chart on your specific FOV

**Why choose an 8 or 12mm lens?**

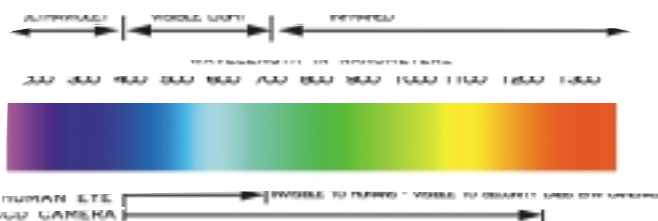
In applications where a closer view is needed (such as above a cash register or over a greater distance), an 8 or 12mm may be desired. The same camera (above) at 21' away with a **8mm** lens will have a 10' vertical x 13' horizontal FOV. At 21' with a **12mm** lens, the FOV will be approx 6' vertical x 9' horizontal. Increasing the focal length of the lens decreases the perceived distance to the viewing area. The SLC-110, SLC115, SLC-120, and SLC-1041 cameras have interchangeable lenses available in 8 and 12mm.

**How does a time lapse recorder work?**

A Security Labs time lapse is set up in a very similar fashion to your home VCR. **It is very simple to connect and operate!** Time lapse recorders, as their name implies, slow down the recording process and create a time lapse between recorded frames. The purpose behind having lapses between recording intervals is to increase the amount of recording time on an individual tape. Unlike a standard VCR which has a maximum record time of 8 hours, time lapse recorders (such as the Security Labs SL811) can record from 2 to 960 hours (15 selectable record speeds) on one standard VHS tape. With a time lapse recorder, one can be assured that his or her property has active surveillance recording around the clock. The playback of a Security Labs time lapse will always have a clear, noise free, high resolution picture. The table below demonstrates the increased time between images in extended record speeds.

RECORD SPEED	TIME BETWEEN RECORDED IMAGES	AUDIO RECORDING
2 Hour	1/60 second	Yes
6 Hour	1/60	Yes
18 Hour	1/20	Yes
24 Hour	.22	No
36 Hour	.32	No
48 Hour	.42	No
72 Hour	.62	No
96 Hour	.82	No
120 Hour	1.02	No
168 Hour	1.42	No
240 Hour	2.02	No
360 Hour	3.02	No
480 Hour	4.02	No
720 Hour	6.02	No
960 Hour	8.02	No

**LIGHT SPECTRUM CHART**  
(DIAGRAM COURTESY SECURITY LABS)



**How does IR Work?**

The human eye can see in the visible light portion of the spectrum chart (above). Above visible light is infrared (IR). The CCD or CMOS device inside your security camera can detect IR light and use it to help illuminate the area viewed. Many Security Labs cameras emit IR so that the area in front of the camera can be seen in total darkness. **ONLY black and white (B/W) cameras are affected by IR illumination.** Color cameras will detect IR to a much lesser degree. Take your TV remote and press a button while pointing it at your camera for a simple demonstration of how a CCTV camera can see IR.

## Security Labs Camera & Monitor Compatibility Guide

Black & White Cameras & Monitors		
Camera	SLM411 B/W Monitor	SLM419 B/W Quad Monitor
SLC-110	1	2
SLC-115	1	2
SLC-128	1	2
SLC-129	1	2
SLC-130B	1	2
SLC-130S	1	2
SLC-131	1	2
SLC-142	1	1
SLC-143	1	1
SLC-1025	1	2
SLC-1026	1	2
SLC-1027	1	2
SLC-1035	1	2
SLC-1036	1	2
SLC-1037	1	2
SLC-1041	1	2

Color Cameras & Monitors		
Camera	SLM412C Color Monitor	SLM418C Color Quad Monitor
SLC-120	1	4
SLC-128C	1	4
SLC-142C	1	1
SLC-143C	1	1
SLC-148C	3	1
SLC-138C	1	4
SLC-151C	1	4
SLC-1025C	1	4
SLC-1035C	1	4
SLC-1037C	1	4

---

**Compatibility Legend**

- 1: Connects directly to monitor
- 2: SLA30 Adapter required for each camera. See page 8.
- 3: Requires SLK-150C Controller Kit for independent use with a monitor or TV. See page 3.
- 4: Requires a BNC to RCA Adapter.

**security labs**  
**CUSTOMER SUPPORT HOTLINE**  
**1-800-774-0284**

15540 Herriman Blvd Noblesville, IN 46060 FAX (317)773-8057  
[www.security-labs.com](http://www.security-labs.com)

**DOWNLOAD OUR CATALOG**  
[www.security-labs.com](http://www.security-labs.com)