E-773 4 Channel Embedded Digital Video Recorder

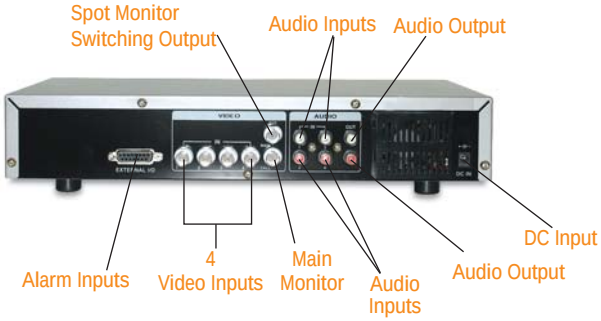
*The **E-773** is a low cost 4 channel Digital Video Recorder. Completely embedded this DVR runs stand-alone and features four standard composite video inputs and a video output. It is the ideal CCTV system for small retail stores, homes or as a replacement for old fashioned time lapse recorders. Integrated motion activated recording also makes it ideal for covert observation systems.*

Control of the unit is via the front panel controls and the on-screen-display menu. Video recording is activated manually, via alarm-input or via the internal motion detection. Motion detection masks and motion dwell time can be pre-configured. Recording speed, quality and quad or multiplexer mode recording can also be setup via the on-screen-display. To playback one needs to simply connect the unit to a video monitor or TV and select an event or press play. Video can be played back at various speeds, in slow motion or frame-by-frame.

AUDIO
WAVELETT
MOTION
ALARM IN / OUT

E-773 Front View

Removable HDD (3.5")



Features

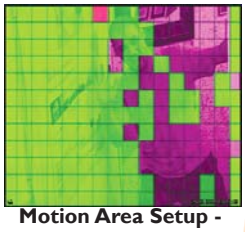
- 4 x Video Input Channels & 2 x Video Outputs
- Monitoring Speed: 25 Fps per Channel in Quad Mode
- Wavelet compression recording format
- Multiplexer or Quad Frame or Quad Field Recording Modes
- Recording Speed: 25 Fps Total in Mux mode, 25 Fps per channel in Quad mode
- Recording Resolution After Compression: Normal - 320 (H); Best - 350 (H)
- Ideal Time-Lapse VCR + Multiplexer / Quad Replacement
- 4 x audio inputs / 2 x audio outputs
- On Screen Display Menu
- Picture-in-picture (PIP) Function (ideal for covert applications)
- Motion detection & motion trigger recording function
- Alarm inputs & Alarm output feature
- Video loss detection
- Digital Zoom (2x~4x) & Adjustable Playback Speed
- Supports 1 x removable 3.5" IDE HDD

Specifications

MODEL	E-773
Video format	NTSC or PAL
HDD Supported	IDE type, UDMA 66, up to 250 GB HDD supported
Recording Mode	Manual / Alarm / Timer / Motion
Camera Input Signal	Composite video signal 1Vp-p (BNC) 4 channels
Main Monitor Output	Composite video signal 1Vp-p (BNC)
Spot Monitor Output	Composite video signal 1Vp-p (BNC)
Audio input	4 audio inputs, (RCA)
Audio output	2 audio outputs, (RCA)
Motion Detect Area	16 x 12 targets per camera
Motion Detect	99 Levels
Video Loss Detection	Yes
Monitoring Speed	Up to 100 images/sec. for PAL
Recording Speed	25 images/sec (Mux mode) 100 fps (Quad Mode)
Dwell Time	Programmable (1~15 Sec)
Picture in Picture	Yes (Movable)
Key Lock	Yes
Camera Title	8 letters
Video Adjustable	Hue/ Colour/ Contrast/ Brightness Adjustable
Alarm Input	TTL input, Hi (5V), Low (GND)
Alarm Output	COM./N.O/N.C
Serial Interface	RS-232 or RS-485
Power Source	(19VDC) PSU Supplied
Operating Power	<32W
Operating Temperature	10º ~ 40º C
Net Weight	2.05 Kg
Dimensions (mm)	343(W) x 223(L) x 59(H)

Removable HDD Bay Available as a spare

Main Menu



Motion Area Setup - With Motion

Typical Recording Times With Motion Activated Recording:

On a 80GB HDD:	1 - 3 Days
On a 160GB HDD:	2 - 6 Days
On a 250GB HDD:	5 - 8 Days

MODEL	Description
E-773	4 Channel Embedded Digital Video Recorder
E-773-HDD-BAY	Spare HDD Bay & Connector for the E-773 DVR series

E-773W 4 Channel Embedded Digital Video Recorder with Network Support

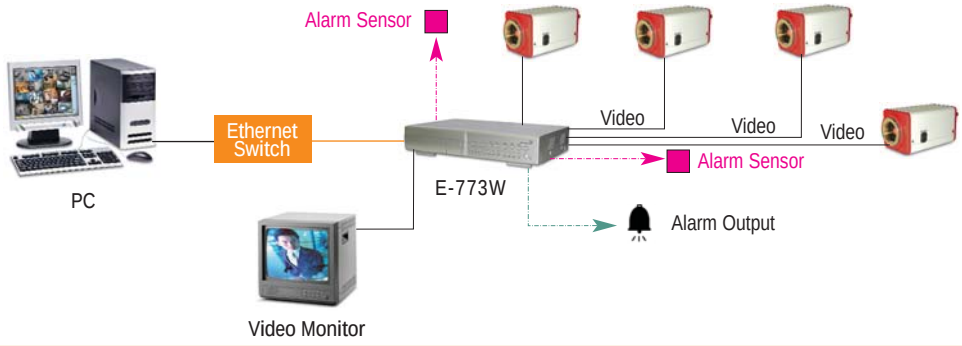
*The **E-773W** is a new version of the 4 channel E-773 DVR. Now with network sup can be accessed over a TCP/IP network using a PC with a client application.*

E-773W Front View

Features

- Video and recording features are identical to the E-773
- Network Interface: 10/100 Base-T (RJ45)
- Client Software included for Windows based PCs
- IP addressable

Typical Configuration



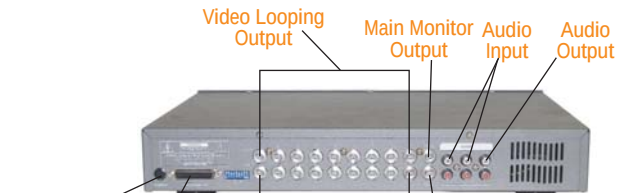
E-776A 9 Channel Embedded Digital Video Recorder

*Built around the same technology as our popular E-773 DVR, the **E-776A** is a 9 channel model.*

The E-776A features nine composite video inputs, a video main monitor output and a switching video output. It is the ideal recorder for small installations with up to nine CCTV cameras.

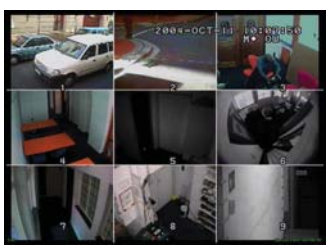
Featuring an integrated multiplexer, the E-776A can display images in single, quad or 9-way mode. Recording is activated via the internal video motion detection, manually or from a hard-wired alarm trigger. Video is digitally recorded using wavelett compression which can be set to various quality modes. The E-776A uses standard 3.5" IDE HDDs which are placed in the removable HDD bay. Video can be searched for via an event log or from the date/time. The recorded video is outputed via the main monitor output. This can then be recorded onto a standard VCR tape for evidence/archiving purposes.

Other features of the E-776A DVR include time/date overlay, adjustable channel gain/contrast/colour, digital playback zoom, looping video outputs & audio inputs.

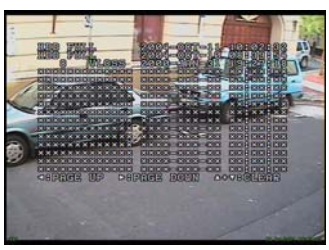


Features

- **Video format:** PAL/NTSC Composite video signal 1 Vp-p 75O
- **Video Inputs:** 9 (BNC connectors)
- **Video Looping Output:** 9 (BNC connectors)
- **Speed**: 60 images/sec (total)
- **Recording Speed:** 18 images/sec (total - approx 2 images/sec per ch)
- HDD: 1 x 3.5" IDE UTMA 66 & above (removable bay)
- **Record mode:** Manual, Alarm, Timer & Motion
- **Main Monitor Output:** Composite video signal 1 Vp-p 75O BNC
- **Spot Monitor Output:** Composite video signal 1 Vp-p 75O BNC
- **Motion Detect Area:** 15 x 14 blocks per camera (PAL)
- **Motion Detect Sensitivity:** 256 Levels
- **Audio input:** 4 (RCA)
- **Audio output:** 2 (RCA)
- **Video Loss Detection:** Yes
- **Spot Monitor Output Dwell Time:** Programmable (1~10 Sec)
- **Picture-in-Picture:** Yes
- **Key Lock:** Yes
- **Camera Title:** 6 letters
- **Alarm Input:** TTL input, Hi (5V), Low (GND)
- **Alarm Output:** COM / N.O. / N.C.
- **Power:** 5VDC (PSU included)
- **Power Consumption:** 27W
- **Serial Interface:** RS-232C/RS-485
- **Dimensions:** 380 x 270 x 65mm (W x L x H)



Multi-screen



Event Log

MODEL	Description
E-776A	9 Ch Video/Audio Digital Recorder - With 60 fps Total Monitoring & 18 fps Total Recording

E-WDR-4CH 4 Channel Network IP Digital Video Recorder

INTRODUCTION

*The **E-WDR-4CH** is a four channel stand-alone network digital video recorder. It features a an integrated ethernet web server, embedded processor with Linux operating system and a removable 3.5" HDD bay.*

VIDEO RECORDING

Upto four video inputs can be connected via the BNC connectors on the unit's rear. Video can be recorded at at overall speed of 25 fps (PAL) with a maximum resolution of 720 x 486. As the unit records using the Wavelett compression algorithm, very efficient compression rates can be achieved allowing fast network video performance. Video is recorded onto the built-in HDD bay. HDDs upto 250 GB in size may be used. The unit does not need to be connected to any network for recording to be achieved. This E-WDR-4CH can record off-line and video played back later from a client PC.

NETWORKABILITY

Designed to operate on a TCP/IP network, the E-WDR-4CH can either be connected via a network switch/hub to the network or directly to a PC via a crossover cable. The unit is then assigned an network IP address and connected via it's LAN interface. Included which each E-WDR-4CH is a comprehensive monitoring/playback Client application which is installed on the PC from which the monitoring/playback will be done.

PTZ CAMERA SUPPORT

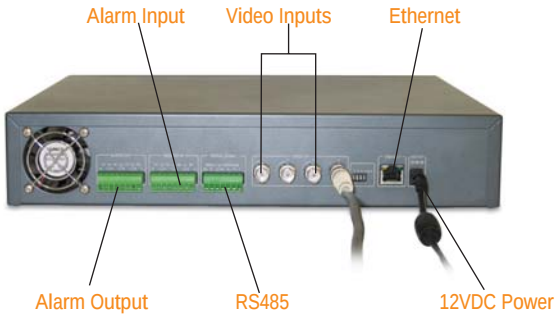
Through the E-WDR-4CH's RS485 port, up to 4 Pan/Tilt/Zoom cameras can be controlled with a variety of the most popular camera protocols being supported. From the client software one can pan/tilt/zoom/focus the camera using the PC's mouse.

OTHER FEATURES

Some of the other features of the E-WDR-4CH include IP filtering, alarm input and output and video gain adjustment.

MULTI-CLIENT APPLICATION

As an option, a special multi-client version of the cleint software called E-CAM-MANAGER is available. This allows control and monitoring of several DVRs simultaneously. Up to 100 different DVRs can be listed with 1, 4, 7, 10, 13, or 16 video channels being displayed simultaneously. The E-CAM-MANAGER also supports PTZ camera control with presets and touring. Some other features include AVI file conversion, mass backup from the E-WDR-4CH and support for video MAPs.



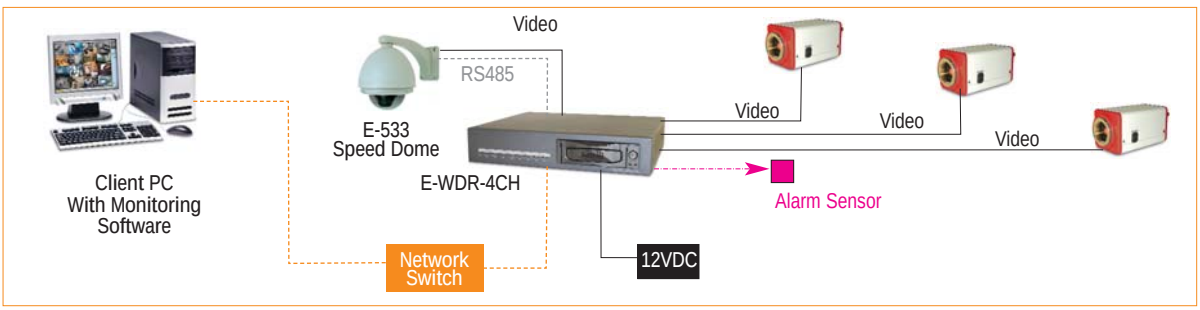
Applications

- Remotely monitoring points of sales area
- Add networkability to old analog CCTC systems
- Retail store remote monitoring
- Pubs/Clubs/Exhibition broadcasting over Internet
- Schools/Institutions applications

Features

- **Video Inputs:** 4 x PAL/NTSC 1Vp-p 75 ohm (BNC)
- **Video Image Format:** 720 X 486, 720 X 243, 360 X 243, 180 X 121, 90 X 60
- **Video Compression:** Wavelett (10:1 ~ 200:1)
- **Video Recording Speed**: Max 25fps (over 4 channels)
- **Network Transfer Speed:** Max 25fps (over 4 channels)
- **Network Protocols Supported:** TCP/IP, ARP, RARP, ICMP, HCP, PPPoE
- **Network Interface:** 10/100-Base-T (RJ45)
- **Password Control:** Administrator & General User
- **Max Clients:** 5 (General) 1 (Administrator)
- **Image Quality:** 10 levels
- **Recording Activation:** Via Motion or Schedule
- Pre & Post Alarm Recording
- **Alarm Inputs:** 4
- **Alarm Outputs:** 4
- **PTZ Support:** 1 x RS485 Interface
- **PTZ Protocols Supported:** Pelco D/P, Philips, Lillin, LG, Samsung, Sensormatic
- **Power:** 12VDC
- **Dimensions:** 67mm × 306mm × 280mm

Typical Configuration



MODEL	Description
E-WDR-4CH	4Ch Network IP Digital Video Recorder - incl Single DVR Client Software
E-CAM-MANAGER	Multi-Client DVR Software - Support for upto 100 different DVRs.

E-NDVR-1016/3016/7016/3032 Complete Digital Video Recording System

This reliable DVR provides the user with a triplex+ operation system allowing simultaneous recording, monitoring, playback & backup. Several models are available with some units featuring real-time monitoring of video cameras, as well as a new 16 channel realtime per channel model. Another new addition to the range is the massive 64 channel DVR.

RECORDING

The entry-level E-NDVR-1016 features 100fps total recording speed, the E-NDVR-3016 & E-NDVR-3032 have 200fps and the latest models the E-NDVR-7016 and & E-NDVR-7064 both have 400fps.

One can set the image resolution up to full frame (720 x 576) which provides high resolution recording of critical cameras such as for number plates. The system can also be programmed to record at a particular speed on event activation for a particular duration. This smart recording enables important cameras to be recorded at a higher frame rate on alarm or motion activation. The recording speed is configurable on a per channel basis. A system schedule allows the user to set recording modes (motion, continuous, no record) for different times of the day.

PLAYBACK

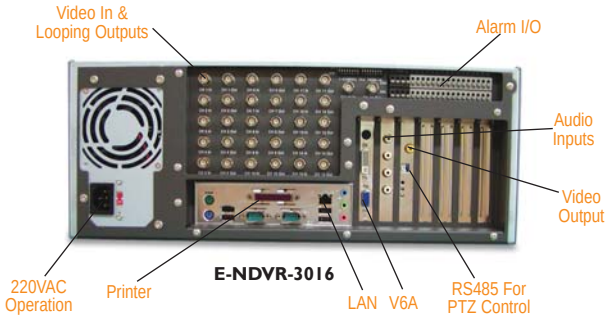
Recorded video can be searched via time, date, channel, event or even motion. The motion function allows the user to search for motion in a particular area of the camera view. An advanced thumbnail preview function allows the user to view video stills simultaneously.

NETWORKING

Remote monitoring and control is possible over TCP/IP connection. A remote client program, which allows the remote function, is included. For systems featuring multiple DVRs, one can select the NDMS network management software which can be used to monitor, backup & configure several DVRs.

OPERATING SYSTEM

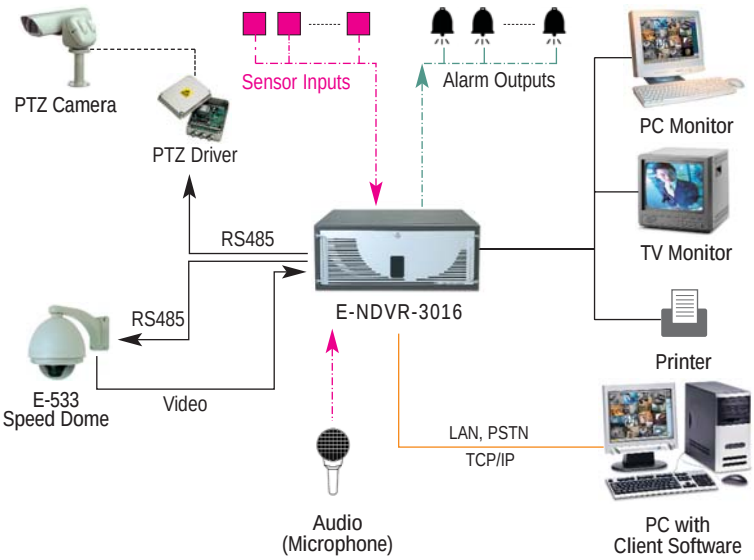
The E-NDVR series uses the stable Windows2000 operating system as its platform. Extremely easy to use, the man-machine interface can be operated easily and effectively by all, from security guard to managing director.



E-NDVR-3016

E-NDVR-3032

Typical Configuration



Specifications

- Multi-tasking system: monitor, record, playback, remote access and backup simultaneously
- Pentium4 based industrial 19" rack mount computer
- PAL/NTSC Composite video input channels - Model dependant - 116/32/64 Channels
- 4 Audio Recording Channels (16 channel Optional)
- 16 Looping Outputs (Model Dependant)
- 2 Channel composite video outputs (16 or 32 Optional)
- Single, 4, 9, 10, 13 or 16 screen window format
- 25 frames/sec real time monitoring per camera (except 1016)
- RS485 Intefrace for PTZ & speed dome camera control
- Software Internal motion detection (5 zones per cam)
- Alarm inputs & 16 Alarm relay outputs
- Alarm, Schedule or Smart Speed recording
- Pre-Alarm recording for upto 1 minute
- Network speed: 80 fps total max
- Dial-up speed: 1-5 fps
- 'CUBIC' CODEC compression technology
- Intelligent smart motion search function
- Recording frame file size: 7-10 Kbytes
- Remote access via TCP/IP
- Backup to DVD-R
- Save images as .jpg's or convert to AVI
- Integrated Video Watermarking Software
- Multi-level password control (supervisor, operator)
- Windows 2000 Operating System

E-NDVR-1016/3016/7016/3032 *Complete Digital Video Recording System*

Main Monitoring Screen Features

- Real-Time Camera Display (25fps per Camera)
- 1, 4, 6, 7, 8, 9, 10, 13, 16 Way Selectable Screen Views
- Clickable Full-Screen Display View
- Automated Sequential Screen Switching
- Quick access to Video Playback & DVR Configuration
- Indication of remote connection to DVR
- Manual Control of Alarm Relay Outputs
- Visible Indication of Alarm activation
- Indicator for current HDD usage
- User auto log off time limit

PTZ Camera Control Features

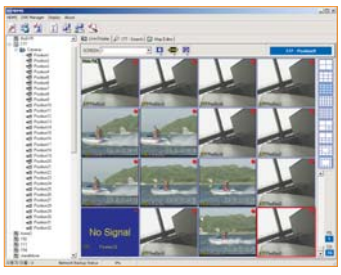
- Support for Several Makes of PTZ/Speed Dome Cameras
- Pan/Tilt/Zoom/Focus Control
- Auxillary Device Control (Lights etc)
- Preset Camera positions
- PTZ Mouse control
- 'Hovering' PTZ control panel

Playback Features

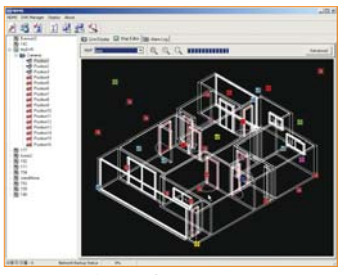
- Search recorded video by time, date & event index
- Smart motion search function
- Thumbnail video preview
- Playback from backup storage media
- Multi-Screen video playback
- Frame-by-Frame playback control
- Adjustable brightness
- Digital zoom

MODEL	E-NDVR-1016	E-NDVR-3016	E-NDVR-3032	E-NDVR-7016	E-NDVR-7064
Video Inputs	16	16	32	16	64
Audio Inputs	2	4	4	4	4
Audio Inputs *with Add-on Card (Optional)*	16	16	16	16	16
Monitoring Speed	100 fps total	25 fps/ch	25 fps/ch	25 fps/ch	25 fps/ch
Recording Speed Max	100 fps	200 fps	200 fps	400 fps	400 fps
Alarm Inputs	16	16	16	16	16
Alarm Outputs	16	16	16	16	16
Looping Video Outputs	N/A	16	N/A	16	N/A
Storage Expansion	8 x 3.5" HDDs	8 x 3.5" HDDs	8 x 3.5" HDDs	8 x 3.5" HDDs	4 x 3.5" HDDs

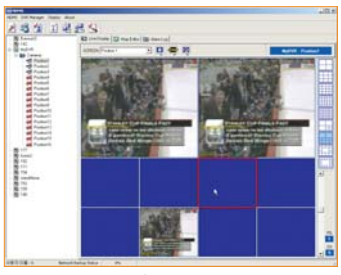
E-NDMS *DVR Network Management Software*



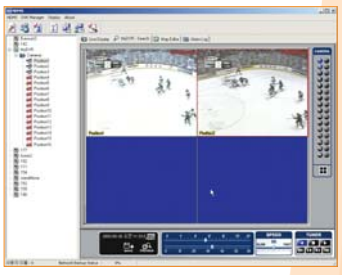
Multi DVR Display



Virtual Camera Map



Tree Structure



Playback

Features

- Display up to 36 cameras from different DVR systems
- Display format: 1/4/7/9/10/13/17/25/36
- Supports up to 100 DVR units
- Access camera images via AutoCAD drawing or via tree structure
- Event log of DVR status (Video loss & sensor alaram)
- Display up to 36 cameras from different DVR systems
- Windows 2000/XP Support
- DVR playback, setup and backup across the network
- User level access control

*The **E-NDMS** is a software package which is installed on a Windows2000/XP PC connected to a TCP/IP network. It enables the user to view and control different cameras from multiple DVR's on the same TCP/IP network.*

EagleDVR *Digital Video Recording Cards*

*Our ever popular **EagleDVR** product is now much better. The latest software release has many new features, such as higher framerate recording, email notification and smart motion search. With the new FastSwitch feature, camera frame rates are doubled with no loss in quality or stability. Dynamic framerate control also means that frames per second from cameras where no motion is present are allocated to 'working cameras'.*

For users not familiar with the EagleDVR system, it turns a Pentium-4 PC into an advanced digital recording and monitoring system. Consisting of a 1, 2 or 4 channel PCI plug-in card and software, the product can be cascaded for up to 16 channels in a PC. The system's scalability allows a user to start off with a single channel and expand to 16 channels at a later stage.

Remote monitoring using the EagleDVR is extremely easy. Included with each card is a client program that is installed on a remote PC on a TCP/IP network. This client allows the user almost full control of the system as if he was sitting at the server location. The client can be used to monitor the camera system at the same quality and speed as if at the actual camera server. Video can also be played back remotely from the server at full quality and resolution.

Other special product features include automatic gain control, adjustable camera layout, half or full frame rate recording, one channel audio recording, motion recording and image enhancement. User-level access control passwords restrict specified cameras to designated operators. Thus one can install 'hidden' cameras unknown to the operator.

The product is extremely stable and operates on Win98, NT4, 2000 & XP (Windows2000 Professional is recommended).

Framerate is Dynamic - Changes when a channel is unused

Monitoring / Recording Speed - 1 Channel Board	25 fps per channel
Monitoring / Recording Speed - 2 Channel Board	6~10 fps per channel
Monitoring / Recording Speed - 4 Channel Board	4~8 fps per channel
Transmission Speed over ADSL	Up to 12 fps
Transmission Speed over 10MB LAN	Up to 25 fps
Transmission Speed over dial-up connection	1-2 fps
Average disk size required* :	
Example 1: Office Environment	
16 Camera System, 120GB HDD	14-16 Days Recording
Example 2: 24 Hour Production Plant	
16 Camera System, 120GB HDD	8-10 Days Recording

* Tested in colour mode at 768 x 288 resolution, 3 frames per second

Features

- 1, 2, 4, 8, 12 and 16 Channel versions
- User friendly "Drag & Drop" software
- Automatic camera switching
- Image formats - 384 x 288, 768 x 288, 768 x 576
- Horiz. Recording (384 x 288) Recording Mode: 250 TVL
- Horiz. Resolution (768 x 288) Recording Mode: 320 TVL
- Horiz. Resolution (768 x 576) Recording Mode: 520 TVL
- Dynamic Frame Rate Recording (4-18 fps per camera)
- Single Channel Audio Recording
- Advanced motion detection with adjustable sensitivity
- Email notification for system events
- Multi-Camera playback
- Variable playback speed
- Automatic backup feature with network support
- Time/date or Enhanced "motion search" with thumbnails
- Post Record Picture enhancement
- Advanced Remote viewing over TCP/IP
- Watermarking for Video Evidence Purposes
- Audit log
- PTZ Support for Pelco D protocol cameras (RS485 Interface or converter needed)

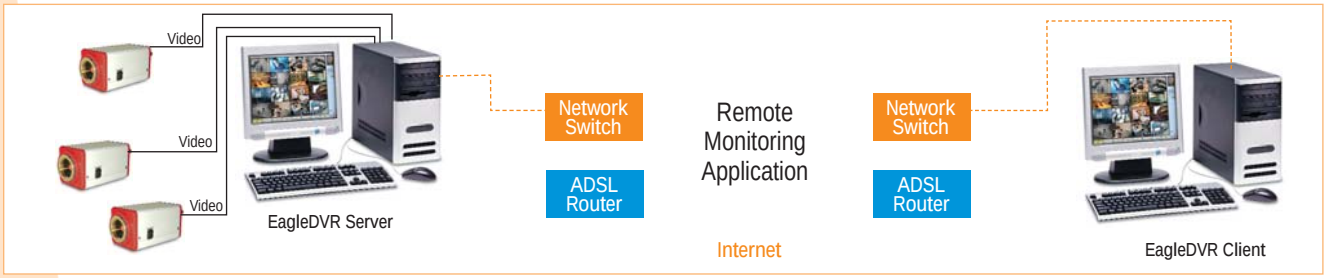
Video Client

- *Via any TCP/IP network or dial-up networking*
- *Remote video monitoring and playback*
- *Adjustable video compression quality*
- *Password and username access control*
- *Adjustable video speed*
- *Unlimited number of client connections*
- *Multiple simultaneous connections to different server sites*
- *Local recording of video stream from the remote viewing site*
- *Realtime playback of recorded video from the server*

Demo CD Available

A demo CD of the EagleDVR is available on request.

Video Over ADSL



Applications


HOME


CORPORATE


PRODUCTION


INDUSTRIAL


GOVERNMENT

System Architecture

The EagleDVR system consists of two functionally independent components: the Video Server and the Video Client. The software for both of these components are supplied free of charge with the EagleDVR boards.

What is the EagleDVR Server?

The Video Server is the Software which forms the core of the system. The EagleDVR Video Server Software is installed on a PC with a minimum of one EagleDVR card. (Up to four cards can be installed.) Video cameras are connected to the card(s) and the Video Server Software is run.

It performs recording, control, review and system administration functions. Access to information processed by the Video Server, as well as its administration, may be performed both locally and remotely. Remote access is made possible through the Video Client. Several Video Client connections can be made to the Video Server through TCP/IP via the Internet, LAN or dial-up networking.

Minimum PC System Requirements

- *Video Server*

For 4 Cameras: *Intel® Celeron (1.2GHz, 256 MB RAM)*
For 8 Cameras: *Intel® Pentium4® (1.8GHz, 512 MB RAM)*
For 12 Cameras: *Intel® Pentium4® (2.0GHz, 512 MB RAM)*
For 16 Cameras: *Intel® Pentium4® (2.4GHz, 512 MB RAM)*

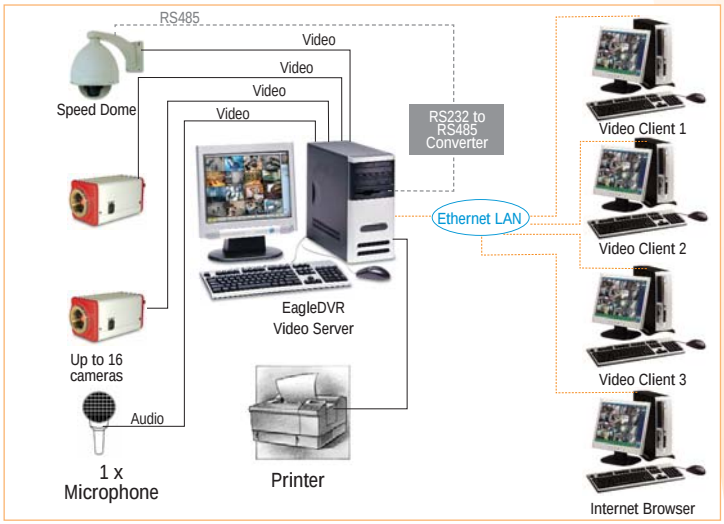
- Motherboard based on Intel® chipsets is recommended
- 32MB AGP display card with hardware video stretching function
- 80GB HDD (250GB HDD reccomended)
- LAN or modem for remote operations
- Operating system: Microsoft® Windows 2000/XP Pro.
- Between 1-4 spare PCI slots (According to number of EagleDVR boards required)

- *Video Client*

Any Pentium PC with Win®98/XP Pro/NT4/2000 and network interface or modem

What is the EagleDVR Video Client?

The Video Client is any personal computer installed with the Video Client Software, which is remotely linked to the Video Server. The Video Client allows remote access to cameras connected to the main Video Server. This allows remote viewing of live or recorded camera footage. (This is ideal for any person wanting to monitor their premises while away.)



Boardlevel Kit

We are able to provide the EagleDVR as a complete plug and play solution. These systems include a PC with HDD, Windows2000® operating system and EagleDVR kit installed.

MODEL	Description
Eagle-DVR-1	**1 Channel Digital Video Recording Kit : 1x PCI Board with Software, Network Support**
Eagle-DVR-2	**2 Channel Digital Video Recording Kit : 1x PCI Board with Software, Network Support**
Eagle-DVR-4	**4 Channel Digital Video Recording Kit : 1x PCI Board with Software, Network Support**
Eagle-DVR-8	**8 Channel Digital Video Recording Kit : 2x PCI Board with Software, Network Support**
Eagle-DVR-12	**12 Channel Digital Video Recording Kit : 3x PCI Board with Software, Network Support**
Eagle-DVR-16	**16 Channel Digital Video Recording Kit : 4x PCI Board with Software, Network Support**

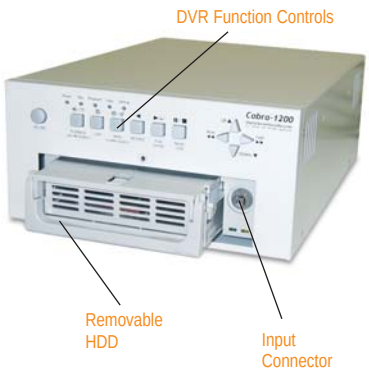
Complete System

Alternatively, the EagleDVR boardlevel kits include the digital video recording board(s), which you install in your PC, and local and remote EagleDVR Software.

MODEL	Description
Eagle-DVR-C4	**4 Channel Complete EagleDVR System - P-4 2.8GHz, 512 MB RAM, 160GB, 17" Monitor, Ethernet, CD-Writer, Keyboard & Mouse, Windows 2000 Professional SP4**
Eagle-DVR-C8	**8 Channel Complete EagleDVR System - P-4 2.8GHz, 512 MB RAM, 160GB, 17" Monitor, Ethernet, CD-Writer, Keyboard & Mouse, Windows 2000 Professional SP4**
Eagle-DVR-C12	**12 Channel Complete EagleDVR System - P-4 2.8GHz, 512 MB RAM, 160GB, 17" Monitor, Ethernet, CD-Writer, Keyboard & Mouse, Windows 2000 Professional SP4**
Eagle-DVR-C16	**16 Channel Complete EagleDVR System - P-4 2.8GHz, 512 MB RAM, 160GB, 17" Monitor, Ethernet, CD-Writer, Keyboard & Mouse, Windows 2000 Professional SP4**

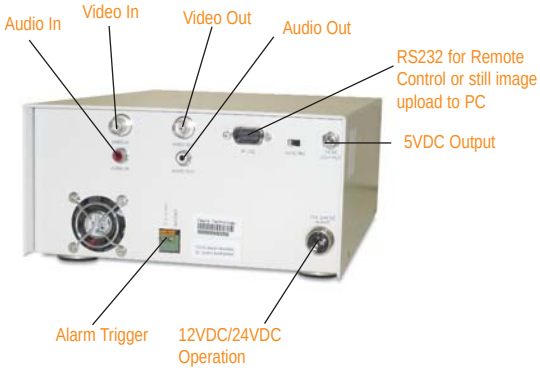
E-COBRA1200 1 Ch Real-Time (25fps) Video/Audio Embedded DVR

*The **E-COBRA1200** is a rugged single channel digital video & audio recorder for 12VDC or portable applications. It's compact size and real-time video and audio recording make it ideal for covert surveillance applications or in-vehicle recording.*



Inside the E-COBRA1200 is a powerful video processor providing real time recording and playback of video data with excellent image quality. The unit is stand-alone and allows playback without the need of a PC or special video player. Control is via the the buttons on the front panel or via the wired RS232 remote control. The remote is useful in situations where the DVR is hidden in the rear of a vehicle and the user wants to start or stop recording.

The E-COBRA1200 uses a standard 3.5" PC HDD which is fitted inside a removable HDD bay. This allows the HDD to be easily replaced for a new recording or for archival purposes. Recording is done in a proprietry custom format which ensures it's data integrity and means that it cannot be said to have been tampered with. The unit's HDD can be removed and backed up or reviewed on a standard PC using our PC HDD bay (E-COBRA-HDD-C) or USB HDD bay. Its ability to endure extreme operating conditions makes it ideal for transport applications, like recording in police vehicles, buses, ambulances, tourist coaches, railroad trains, mass transit and public vehicles, as well as in severe industrial settings.



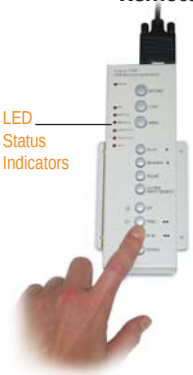
The unit uses wavelet compression which aids in providing non-blocky, high quality, high speed video. All recorded video is watermarked and time/date stamped. Video can be played back at various speeds and images viewed frame-by-frame. An RS232 port is provided for uploading still images to a PC for storage/review or for controlling the functions of the unit.

As it is a stand-alone system utilising an embedded operating system, the E-COBRA1200 is ultra-stable and has a speedy boot time. It can operate of 12VDC or 24VDC.

Specifications

- Mobile Digital Video Recorder
- Embedded Operating System with real-time clock
- 1 Video & 1 Audio Input (1Vp-p 75 ohm)
- 3 Compression Levels (Low = 16kb/picture = VHS; Medium = 32kb/picture - S-VHS; High = 48kb/picture = S-VHS+)
- 720x576 pixel resolution
- 25 frames/sec recording speed (50 fields/sec)
- 8 Adjustable frame rate settings
- **Recording modes:** continuous, time-lapse, schedule
- Removable HDD bay with 80GB 3.5" HDD (Upto 120GB Supported)
- Play, FFW, RRW, Still/Pause controls
- **Playback Speeds:** 1x, 2x, 4x up to 600x
- **Slow Motion Playback:** 1, 1/2, 1/4, 1/8, 1/16
- On-screen Display Menu
- Video Watermarking
- RS-232 Wired remote control
- 2 Alarm Input (1 on rear, 2nd on RS232 remote)
- **Temperature:** 0º to 50°C (operating); -20 to 70°C (storage)
- **Operating Voltage:** 12VDC or 24VDC @ 1A
- **Shock:** 2G's: Vibration: 0.75G
- **Weight:** 6 Kg
- **Dimensions:** 100 x 200 x 265 mm

E-COBRA1200 Remote



Recording Duration In Hours

QUALITY	50 FPS	25 FPS	12 FPS	6 FPS	3 FPS	2 FPS	1 FPS	0.5 FPS
High (48K)	18 - 36 hrs	36 - 72 hrs	75 - 150 hrs	150 - 300 hrs	300 - 600 hrs	600 - 1200 hrs	1200 - 2400 hrs	2400 - 4800 hrs
Normal (32K)	27 - 54 hrs	54 - 108 hrs	112 - 224 hrs	224 - 448 hrs	448 - 896 hrs	896 - 1792 hrs	1792 - 3584 hrs	3584 - 7168 hrs
Low (16K)	55 - 10 hrs	110 - 220 hrs	229 - 458 hrs	458 - 916 hrs	916 - 1832 hrs	1832 - 3664 hrs	3664 - 7328	7328 - 14656 hrs

MODEL	Description
E-COBRA1200	1 Ch Video/Audio Digital Video Recorder with removable HDD bay for Vehicle use - compact size
E-COBRA-HDD-C	Spare Removable HDD Carrier Bay

E-COBRA4000 — 4 Channel 15fps/Ch Video & Audio Embedded Vehicle DVR

*The **E-COBRA4000** is a rugged four channel digital video and audio recorder for 12VDC applications. It's compact size and near-real-time video and audio recording make it ideal for covert surveillance applications or in-vehicle recording.*

AUDIO
WAVELETT
MOTION
ALARM IN / OUT
12VDC

RECORDING

Inside the E-COBRA4000 is a powerful video processor providing near real time recording at upto 12.5 fps @ 720x576 per channel.The unit is stand-alone and allows playback without the need of a PC or special video player. Control is via the the buttons on the front panel or remotely via the wired RS232 . Recording is activated by schedule, alarm input or from the special internal motion detection function.The E-COBRA4000 uses a standard 3.5" PC HDD which is fitted inside a removable HDD bay. This allows the HDD to be easily replaced for a new recording or for archival purposes. Recording is done in a proprietry custom format which ensures it's data integrity & means that it cannot be said to have been tampered with. The unit's HDD can be removed and backed up or reviewed on a standard PC using our PC HDD bay (E-COBRA-HDD-C) or USB HDD bay.

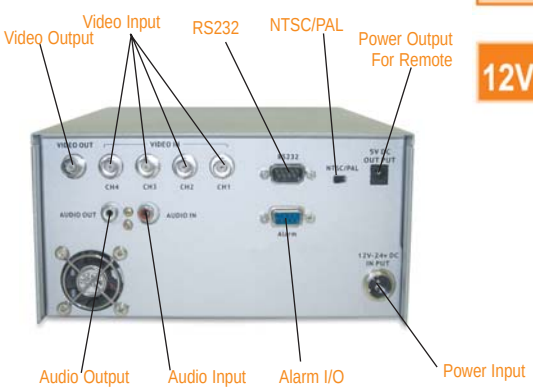
RUGGEDNESS

Its ability to endure extreme operating conditions makes it ideal for transport applications, like recording in police vehicles, buses, ambulances, tourist coaches, railroad trains, mass transit and public vehicles, as well as in severe industrial settings.The wide range power input also allows 12VDC or 24VDC operation.

COMPRESSION & PLAYBACK

The unit uses wavelet compression which aids in providing non-blocky, high quality, high speed video. All recorded video is watermarked and time/date stamped. Video can be played back at various speeds and images viewed frame-by-frame. An RS232 port is provided for uploading still images to a PC for storage/review or for controlling the functions of the unit.

As it is a stand-alone system utilising an embedded operating system, the E-COBRA4000 is ultra-stable and has a speedy boot time.



Removable HDD

Specifications

- Mobile Digital Video Recorder
- Embedded Operating System with real-time clock
- 4 Video (1Vp-p 75 ohm) & 1 Audio Input
- 3 Compression Levels (Low = 16kb/picture = VHS; Medium = 32kb/picture - S-VHS; High = 48kb/picture = S-VHS+)
- 720 x 576 pixel resolution
- 12.5 frames/sec recording speed per channel
- 8 Adjustable frame rate settings
- **Recording modes:** continuous, time-lapse, schedule
- Removable HDD bay for a 3.5" HDD
- Play, FFW, RRW, Still/Pause controls
- **Playback Speeds:** 1x, 2x, 4x up to 600x
- **Slow Motion Playback:** 1, 1/2, 1/4, 1/8, 1/16
- On-screen Display Menu
- Video Watermarking
- RS232 Interface For Remote Control
- Alarm Input & Relay Output
- **Temperature:** 0º to 50°C (operating); -20º to 70°C (storage)
- **Operating Voltage:** 12VDC or 24VDC @ 1A
- **Shock:** 2G's: Vibration: 0.75G
- **Weight:** 6 Kg
- **Dimensions:** 100 x 200 x 265 mm

Recording Time in Hours - Fulltime Recording

● Frame Mode Recording ◉ Field Mode Recording

FPS QUA	50P		25P		12P		6P		3P		2P		1P ● ◉		0.5P ● ◉	
	●	◉	●	◉	●	◉	●	◉	●	◉	●	◉				
High (48K)	**20:50**	**31:35**	**37:40**	**58:27**	**65:28**	**110:38**	**130:32**	**205:30**	**260:18**	**398:18**	-	-	-	-	-	-
Normal (32K)	**32:8**	**48:33**	**61:55**	**91:06**	**117:15**	**180:38**	**220:16**	**364:35**	**440:48**	**725:20**	-	-	-	-	-	-
Low (16K)	**51:45**	**64:41**	**108:10**	**121:49**	**220:05**	**240:30**	**416:44**	**482:48**	**828:08**	**988:16**	-	-	-	-	-	-

MODEL	Description
E-COBRA4000	4 Ch Video/Audio Digital Video Recorder with removable HDD bay for Vehicle use
E-COBRA-HDD-C	Spare Removable HDD Carrier Bay

E-CLIPMAKER *Hi-Res Handheld Miniature Digital Video/Audio Recorder*

*Certainly the world's smallest digital video recorder, the **E-CLIPMAKER** was designed for high quality digital audio/video recording and playback. Compact video recorders are one of the only arenas that have been neglected in the world of digital media.*

Totally stand-alone, this recorder features a proprietry operating system which manages the high speed audio/video signals, an embedded processor and a 2.5" sized laptop HDD for storage. All this is packaged in a solid aluminium housing weighing only 380g's. Composite video or S-video inputs allow the unit to accept video signals from any standard camera or video source and record it directly to hard disk. The hard disk is removable and can easily be replaced with another drive. For PC review, the hard drive can be placed in the optional PC docking station and video replayed or converted to standard AVI files for transfer or editing.

All setup & control of the E-CLIPMAKER is performed via the unit's touchscreen with backlit display. This high contrast, high brightness display has an easy-to-use menu with sections for software version, hardware setup, audio/video setup and of course a main screen with record & playback controls.

Video Recording is activated manually by pressing the record button for 2 seconds (to prevent accidental presses), or by several other options including RS232 remote control, via a phototransistor connected to the the remote input, or lastly via a Sony LAN-C compatible device control/command. Besides PC playback by removing the HDD, the unit can also be connected to a standard video monitor via it's composite video/s-vhs output. Once connected, a handy-jog shuttle allows for several speeds of slow or fast playback.

Due to it's futuristic design and multi-media display format, the E-CLIPMAKER can easily be upgraded when new software updates are available. Software upload is via the RS232 port.

The unit is powered through a DC socket with a 7~12VDC power source. Optional accessories include a battery pack to power it for +/-3.5 hours, a protective carry case and a USB PC docking station with software.

Applications for this recorder include any situation in which a miniature long-length digital video recorder is required. These include covert surveillance, law enforcement, aerial video surveillance, broadcast or film, body-worn recorders, transport security and many more.

E-HDBAG
Protective Bag

USB DOCKING STATION
AUDIO
WAVELETT
12VDC
PAL NTSC
S-VIDEO

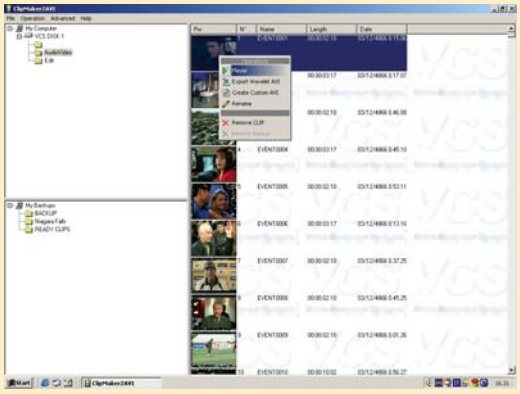
Features

- Miniature Digital Video Recorder (Stand-Alone)
- Backlit LCD Touchscreen (320 x 240)
- ARM Risc Processor with 1MB Flash Memory, 32MB DRAM
- Start/Stop/Playback/RRW/FFW/Pause/Jog-Shuttle Controls
- Composite Video or S-Video Input (1Vp-p 75ohm)
- Composite Video or S-Video Output (550TVL @ 50 fields)
- Video Input/Output Connectors (2 x Mini-Din Sockets)
- Adjustable brightness/contrast/saturation
- Stereo Audio Input & Output (2 x 3.5" Stereo Sockets)
- Adjustable Audio Input/Output Levels with Built-In Amplifier
- Removable 2.5" Laptop HDD
- USB docking bay with AVI conversion/playback software
- Proprietry Operating System
- Wavelett Compression
- **Recording Resolution:** 720 x 576
- **Recording Speed:** 50/25/12/6/3/1 fields/sec (adjustable)
- Adjustable Compression settings (50 ~ 100)
- RS232 (115k baud) port for remote control or PC interfacing
- One 38KHz Infra-Red RC5 compatible Receiver
- Input Trigger / LAN-C Interface (2.5 mm stereo socket)
- **Power:** 7~12VDC (2.1 mm DC-Jack)
- **Power Consumption:** 800mA Max (500mA when recording)
- **Weight:** 500 g (w/ HDD) 380g (w/o HDD)
- **Dimensions:** 88 x (W) x 38 (H) x 110 (D) mm

MODEL	Description
E-CLIP30MP	Miniature Digital Video/Audio Recorder with 30GB HDD
E-FRAMEPC	USB Interface Docking Station for Clipmaker - Includes Clipmaker AVI Software - USB Powered
E-PLATEHD	Spare HDD Mounting Plate
E-BPACK	Battery Pack to power E-CLIP30MP DVR
E-HDBAG	Protection Bag for E-CLIP30MP DVR
E-HDD-25-30GB	Spare 2.5" 30GB Laptop HDD
E-HDD-25-40GB	Spare 2.5" 40GB Laptop HDD
E-HDD-25-60GB	Spare 2.5" 60GB Laptop HDD
E-HDD-25-80GB	Spare 2.5" 80GB Laptop HDD

Recording Time In Minutes

	Fps							Fps					
			30 GB	40 GB	60 GB	80GB				30 GB	40 GB	60 GB	80 GB
Quality	10	50	733	977	1466	1954		60	50	211	281	422	562
		25	1130	1507	2261	3014			25	388	517	776	1034
		12	1550	2067	3101	4134			12	671	895	1343	1790
		6	1904	2539	3809	5078			6	1055	1407	2111	2814
		3	2149	2865	4298	5730			3	1478	1971	2957	3942
		1	2297	3063	4595	6126			1	1849	2465	3698	5290
Quality	20	50	544	725	1088	1450		70	50	198	264	396	528
		25	891	1188	1782	2376			25	366	488	732	976
		12	1309	1745	2618	3490			12	637	849	1274	1698
		6	1711	2281	3422	4562			6	1013	1351	2027	2702
		3	2020	2693	4040	5386			3	1436	1915	2873	3830
		1	2222	2963	4445	5926			1	1815	2420	3630	4840
Quality	30	50	393	524	786	1048		80	50	184	245	368	490
		25	677	903	1355	1806			25	342	456	684	912
		12	1063	1417	2126	2634			12	601	801	1202	1602
		6	1486	1981	2972	3962			6	967	1289	1934	2578
		3	1855	2473	3710	4946			3	1390	1853	2780	3706
		1	2118	2824	4236	5648			1	1778	2371	3557	4742
Quality	40	50	304	405	608	810		90	50	172	229	344	458
		25	541	721	1082	1442			25	322	429	644	859
		12	887	1183	1775	2366			12	570	760	1140	1520
		6	1305	1740	2610	3480			6	925	1233	1850	2466
		3	1707	2276	3414	4552			3	1346	1795	2693	3590
		1	2018	2691	4037	5382			1	1742	2323	3485	4646
Quality	50	50	252	336	504	672		100	50	157	209	314	418
		25	458	611	917	1222			25	295	393	590	786
		12	772	1029	1544	2058			12	528	704	1056	1408
		6	1176	1568	2352	3136			6	869	1159	1739	2318
		3	1593	2124	3186	4248			3	1286	1715	2573	3430
		1	1936	2581	3872	5162			1	1690	2253	3380	4506



AVI Conversion Software

USB Docking Station

E-SG2000 *Micro Video & Audio DVR & Ethernet Server*

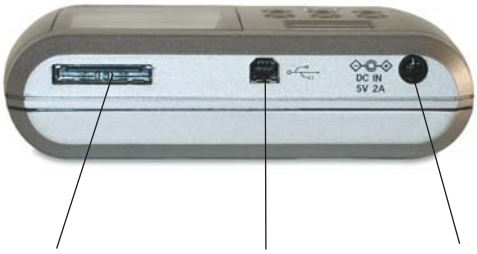
*The **E-SG2000** is the smallest digital video and audio recorder to date. The size of a pager, the unit is ideal for all covert or battery powered video applications. It records using MPEG4 compression and can accept in a standard video input signal from any of our range of covert or overt surveillance cameras.*

*Besides the four external video inputs, the **E-SG2000** has an integrated colour pinhole camera, as well as two integrated audio microphones and a speaker. DVR recording is activated by the internal software motion detection, manually or via an alarm trigger. This recorded digital data is then stored on an internal flash disk or on a removable SD memory cartridge.*

Setup and control of the unit can be done via an on-screen-display menu on the unit's tiny display or via a PC through Ethernet.

Features

- Micro Sized Embedded Digital Video Recorder
- **Video Inputs:** 4 x External (NTSC/PAL) Video Inputs
- 1 x Integrated Colour Pinhole Camera (2nd Optional)
- **Audio:** 2 x Integrated Microphones & 1 x Internal Speaker
- **Display Speed (Quad View):** 80 fps Total
- **Recording Format:** 240 x 240 or 480 x 480
- **Max Recording Speed:** 15 fps (240x240)
- **Compression:** Optimised MPEG4
- Software Motion detection
- Setup & Configuration via Remote Network Connection
- **Display:** Built-in 1.8" LCD Display
- **Storage:** 128MB Flash
- **External Storage:** SD Memory Card upto 1GB
- 1 x External Video Output
- 1 x USB Interface
- **Alarm I/O:** 3 x Alarm Inputs & 3 Alarm Outputs
- Battery: Lithium Ion 3.7V 1500mAh Battery
- **Battery Lifetime:** 4 Hours (Normal Mode)
  12 Hours (Power Save Mode)
- Watchdog Timer
- **External Power:** 5VDC @ 2A
- **Operating Temp:** -20º to 50ºC
- **Weight:** 200g
- **Dimensions:** 80 x 60 x 20mm



E-SG2000 With Camouflage Housing

MODEL	Description
E-SG2000	Miniature MPEG4 Video/Audio Digital Recorder - Internal Colour Pinhole CCD Camera & 2 External Video Inputs - 240 x 240 Image Format (20fps), 320x240 (15fps), 480x480 (4fps) - 128MB Flash Disk - 4 Hour Removable Battery Pack - USB Interface

E-M3DVR *Compact Digital Video and Audio Recorder*

*The **E-M3DVR** is an extremely compact digital video & audio recorder. Completely embedded the recorder features an integrated LCD display, 20GB 2.5" HDD & battery pack.*

It is compatible with any standard composite video signal and can be used to record video from covert cameras, wireless video receivers or any other PAL/NTSC source. Video is inputted via a 3.5 mm CVBS socket for which RCA adaptor cables are provided. The video signal is encoded in real-time into MPEG-4 format. Users can record video clips in various lengths including 30 min, 1 hour, 20 hour & 30 hour modes. Synchronised audio can also be recorded simultaneously with the video, which is compressed in G.726 compression format.

Playback can be done on the unit using the built-in LCD display, via a PC using the USB interface or through the analog video/audio output. On the unit, the user selects the play function in the menu and then the clip recorded. Clips can be given a title and selected from a list. For PC playback, one simply connects the unit via the USB interface and the PC recognises it as a removable HDD. One can then use Video For Windows to playback clips. The video/audio output can be connected to a standard video monitor or to an analog VCR for storage onto a standard VHS cassette.

Control of the unit is via the on-screen graphical menu or via an IR remote control which is provided.

Power for the unit is provided by an internal Lithium Ion battery or by an external 12VDC supply. The battery is removable and can be swapped out with a fresh one when depleted.

Due to its extremely compact size the E-M3DVR is ideal for body worn use, please ask about our body worn covert cameras. Included with the unit are the following, 2 x 3.5 mm CVBS to RCA cables, a USB cable, an AC adaptor, IR remote, earphones, as well as a driver cd and user manual.

E-M3DVR

Removable Lithium Ion Rechargeable Battery (Included)

Protective Carry Case (Included)

Specifications

Video & Audio	
Video Recording Speed	25 fps (18~22 fps with more than 50% motion)
Video Recording Image Format	320 x 240
Video Recording Horiz. Resolution	220 TVL (after compression)
Video Compression	MPEG-4
HDD	40GB 2.5" IDE
Recording Time	Up to 30 hours
Audio Recording	Real time
Audio Compression	G.726
LCD Display	
Display type	3.5" (9 cm) TFT LCD
Display Format	480 x 234 Pixels
PC Connection	
Interface	USB 2.0
PC Format	DivX Video for Windows
Connectors	
Audio / Video Input	3,5 mm CVBS Socket
Audio / Video Output	3,5 mm CVBS Socket
DC jack (mm)	3,5 mm
Headphone jack (mm)	3,5 mm
Power	
Battery Type	Removable 7.4V 1800mAh Rechargeable Lithium-Ion Battery
Battery Life	4 Hours
External Power	12VDC @
Weight	300 g
Dimensions (W x H x D) mm	135 x 80 x 24

MODEL	Description
E-M3DVR	Body Worn Digital Video and Audio Recorder

E-M4DVR *Compact Digital Video and Audio Recorder With SD Card*

Building on the same high quality performance as our E-M3DVR this new product features many additions.

COMPACT SIZE

*Extremely compact the new **E-M4DVR** measures 127 x 76 x 21 mm making it ideal for covert recording applications. This small sized DVR features a 1.8" Format HDD which allows recording for up to 40 hours.*

RECORDING

Accepting external video and audio inputs, the E-M4DVR can be used to record from a variety of covert video cameras or standard AV sources. The analog video is compressed and stored digitally in MPEG4 format. Audio is recorded in the G.726 standard. Video can be played back on the 3.5" LCD, backed upto a PC via USB or on a standard analog VCR monitor. Data can be recorded onto the unit's integrated HDD or onto a removable Flash memory card.

POWER

Two modes of operation are possible. Battery power is provided by a removable rechargable lithium pack for up to 2 hours. For longer operation, the DVR can be powered from an external 12VDC source.

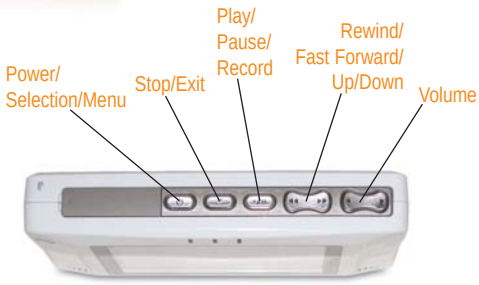
OTHER FEATURES

One of the main upgrades to this model is the addition of the SD slot which can be used as a means of removable storage. Stereo speakers have also been added allowing audio playback, straight from the unit.

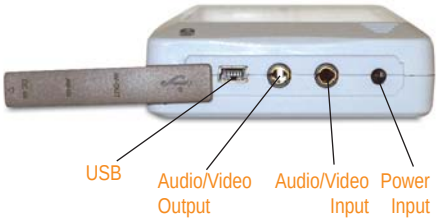
E-M4DVR

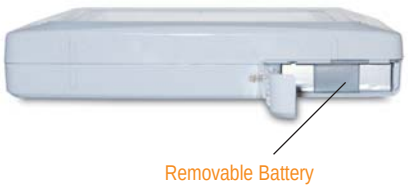
Specifications

Video & Audio	
Video Recording Speed	25 fps (18~22 fps with more than 50% motion)
Video Recording Image Format	320 x 240
Video Recording Horiz. Resolution	220 TVL (after compression)
Video Compression	MPEG-4
HDD	20GB 1.8" IDE
Recording Time	Up to 40 hours
Audio Recording	Real time
Audio Compression	G.726
LCD Display	
Display type	3.5" (9 cm) TFT LCD
Display Format	480 x 234 Pixels
Audio	
Speakers	Dual Integrated 0.5W Speakers
Microphone	Built-in
Removable Storage	
SD Slot	One SD Card Slot
PC Connection	
Interface	USB 2.0
PC Format	DivX Video for Windows
Connectors	
Audio / Video Input	3,5 mm CVBS Socket
Audio / Video Output	3,5 mm CVBS Socket
DC jack (mm)	3,5 mm
Headphone jack (mm)	3,5 mm
Power	
Battery Type	Removable 7.4V 780mAh Rechargeable Lithium-Ion Battery
Battery Life	2 Hours
External Power	12VDC
Weight	220 g
Dimensions (W x H x D) mm	127 x 76 x 21



E-M4DVR - Top View





MODEL	Description
E-M4DVR	Digital Video and Audio Recorder

E-DV56 Compact Digital Video Event Recorder - With Motion Detection

*The **E-DV56** is a colour single channel solid state digital video event recorder.*

With the E-DV56 one can automatically record video events on a Memory Card when an alarm is activated. The alarm can be activated by external triggers and/or by the internal Video Motion Detection (VMD). With the VMD, the user is able to define specific areas of interest within the picture frame. Images can be recorded at various resolutions and at speeds from 1 image every 5 seconds to 10 images every second. The recorded events are easily analysed by simply removing the Memory Card from the unit and inserting it into a Memory Card Reader connected to a PC or Pocket PC. With this the images can be played back at various speeds and listed by thumbnail or time recorded. The video images can also be backed upto CD as an AVI video or as JPEG images. The remote control enables the user to Arm/Disarm the event recording process or Record events manually. Due to it's compact size, removable storage and wide DC operation, the E-DV56 is the ideal product for fixed covert vehicle or building installation.

E-DV56 Front

AUDIO

MOTION

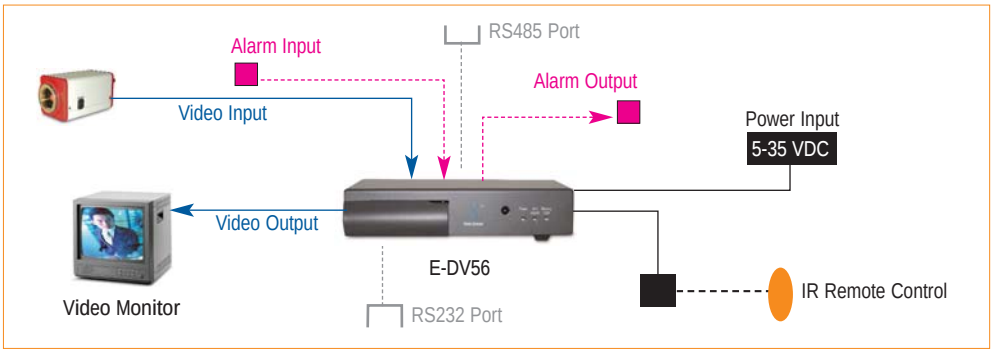
ALARM IN / OUT

SD CARD

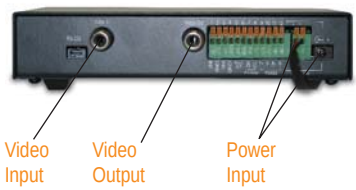
Specifications

MODEL	E-DV56	Recording Activation	Via Alarm Trigger, VMD or via Remote
Video Input	1 x Colour or B/W PAL/NTSC Video Signal		Control
Video Output	1 x Composite Video (RCA)	Pre-Alarm Recording	Yes
Video Resolution	640 x 480 (VGA), 640 x 240 (HVGA)	Image Watermarking	Yes
	& 320 X 240 (QVGA)	Title	Time/Date on Image
Video Quality	8 levels	Alarm Input	TTL input High (3~15V), Low (GND)
Compression	JPEG	Alarm Outpu	N/O or N/C (28VDC) @ 0.1A
Recording Rate	10 images/sec to 1 image/every	Serial Interface	One RS232/RS485
	5 seconds	Operation	5~35 VDC (12VDC Reccomnded)
Image Size	10Kb to 150Kb	Voltage & Current	12VD; 180mA
Storage Type	Removable MMC/SD Card	Weight	300g
Recording Mode	Linear or Cyclic	Dimensions	140 x 75 x 30 (mm)

Typical Configuration



E-DV56 Back



Removable SD Memory Card

Recording Timetable - 320 x 240 Resolution

Recording Quality	Memory Card Size				
	64M	128M	256M	512M	1024M (1G)
Excellent (40K)	1600/2H	3200/4H	6400/8H	12800/16H	25600/32H
Very Good (22K)	2920/4H	5840/8H	11680/16H	23360/32H	46720/64H
Good (15K)	4000/6H	8000/12H	16000/24H	32000/48H	64000/96H
Standard (10K)	6400/8H	12800/16H	25600/32H	51200/64H	102400/192H

Recording Timetable - 640 x 480 Resolution

Recording Quality	Memory Card Size				
	64M	128M	256M	512M	1024M (1G)
Excellent (150K)	400/0.5H	800/1H	1600/2H	6200/4H	12400/8H
Very Good (90K)	750/1H	1500/2H	3000/4H	6000/8H	12000/16H
Good (60K)	1000/1.5H	2000/3H	4000/6H	8000/12H	16000/24H
Standard (40K)	1600/2H	3200/4H	6400/8H	12800/16H	25600/32H

MODEL	Description
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