



Divar - Digital Video Recorder



- ▶ 6, 9 & 16-channel versions
- ▶ Bilinx communication optional
- ▶ Simultaneous recording, playback & archiving
- ▶ AutoDome control
- ▶ Smart motion search
- ▶ Authenticated images for evidence
- ▶ Multiple Divar 'control center' for remote operation
- ▶ Internal or external DVD writer

The Bosch Divar digital versatile recorder series are extremely compact, low profile units that combine advanced digital recording and multiplexing, not only saving space, but ensuring integrated functionality. The Divar has been designed with both operator and installer in mind, by making the unit easy to use and install, and maintenance free. The Divar allows simultaneous recording and playback of video images. "Overwrite protection" of marked video clips prevents the loss of vital material.

The images per second (IPS) record rate and image quality are selectable for each connected camera. This makes it possible to prioritize recording between high-risk areas and low risk areas. By having a higher refresh rate only for critical or high-risk security areas, considerable hard disk space can be saved. Recording rates of 50 IPS (PAL) or 60 IPS (NTSC) are guaranteed, without the need for synchronization.

As well as control of external alarm inputs, the Divar's motion detector triggers an alarm when movement in a user-definable area of the image is detected.

Smart motion search can be used for easy retrieval of motion that has taken place within a user-specified part of the image during a specified time-span.

The Divar is expandable with an optional keyboard, allowing AutoDome control as well as enhanced playback control. Where video is required for evidence of an incident, it is simple to archive the video with a dedicated PC player for playback of the secure video files to a DVD or CD with the

internal or external DVD writer. The Divar uses video authentication that can automatically detect any alteration of the recorded video.

For easy installation, a "Quick install" feature is included. Additionally, on-screen menus are provided in several languages and context sensitive help is always available by just pushing the yellow button. A configuration tool is supplied to simplify setting up a system using a PC. Because Divar is available with Bilinx, functions usually requiring hands-on access to a camera now use the video cable to communicate with Bilinx cameras.

Owing to its high degree of integrated functionality, the Divar can be the central element in a self-contained security system with up to 256 cameras. Because the Divar is fully compatible with any standard 10/100 Base-T network, it is ideal for distributed security surveillance systems.

An optional ATM/POS bridge enables financial transaction details to be recorded together with video. This makes the Divar suitable for use at cash dispensers, check out desks and other similar applications where it is sometimes necessary to verify or identify what happened during a particular transaction.

Full control is also possible when using the user-friendly Control Center software that allows remote viewing of live and recorded video from multiple Divars at the same time. This makes it ideal for multiple location systems such as chains of shops or fast food outlets. Using Internet Explorer, the Divar can also be accessed to view live action or

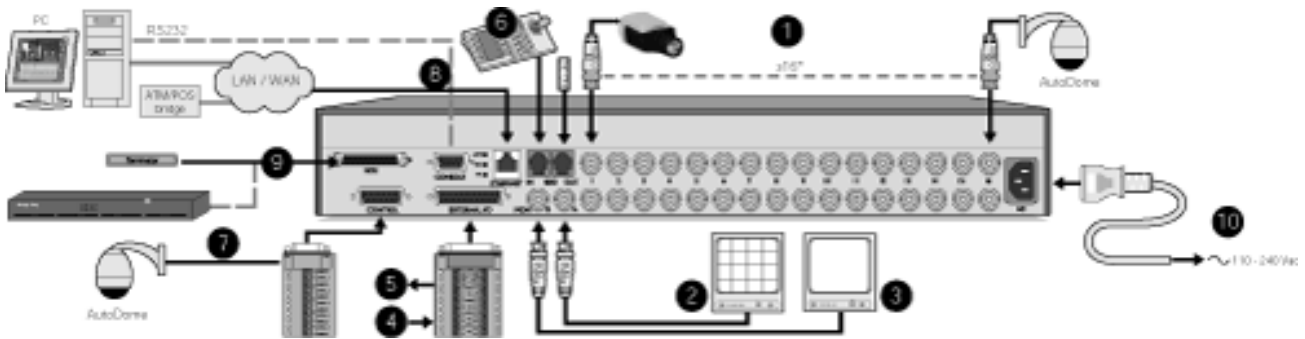
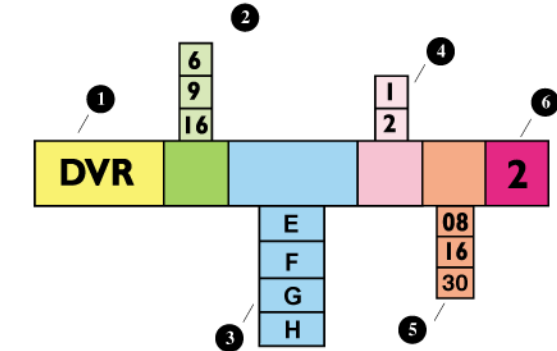
playback archived event without special software or tools.

Where additional storage is required, optional storage arrays can be connected to expand the storage capacity. It is even possible to calculate the required capacity by visiting www.boschsecuritysystems.com and use the Divar storage calculator.

Installation/Configuration Notes

- 1 Type
- 2 Video inputs
- 3 E: Divar
F: Divar with internal DVD writer
G: Divar with Bilinx
H: Divar with Bilinx and internal DVD writer
- 4 & 5 Disk capacity is the multiple of these two figures times 10 in GB
- 6 Revision

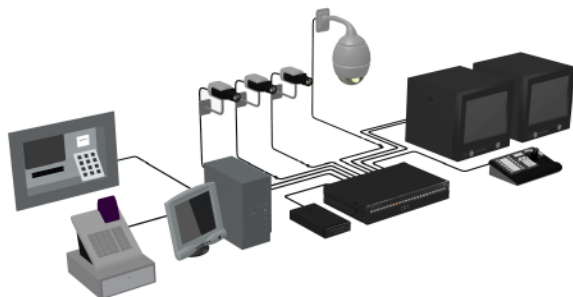
Note the "G" option (Divar with Bilinx) is only available in the EMEA and the APR regions (this option is not offered in the US).

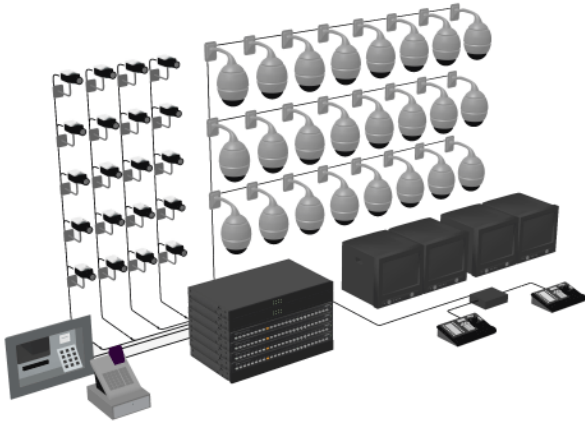


- 01 Cameras
- 02 Monitor
- 03 Spot monitor
- 04 Inputs
- 05 Outputs
- 06 Keyboard
- 07 Control
- 08 Ethernet
- 09 SCSI
- 10 Power

COMPLETE STAND-ALONE SYSTEM

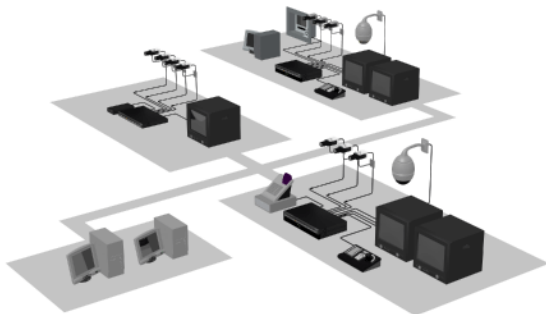
Extending the functionality of a single Divar for active observation. This Divar system uses a universal keyboard for controlling fixed and AutoDome or PTZ cameras. It has a main monitor plus spot monitor, alarm I/O (for external alarms and sensors), a storage array and a PC with Control Center software. A DVD writer is used for making archives. An ATM/POS bridge can be used to connect to an ATM or point-of-sale machine.





MEDIUM LOCALIZED SYSTEM

Using the Bosch Video Manager to build up CCTV recording system. Up to 16 Divar units with storage arrays for longer archive are managed by Video Manager. There can be two monitor locations, each with its own keyboard and alarm monitor. The alarm I/O is linked to external alarms. An ATM/POS bridge can be used to connect to an ATM or point-of-sale machine.



MULTI-LOCATION WITH CENTRALIZED CONTROL

Using a wide-area network to link Divar systems in various locations. Each location has a local Divar system (from basic to complete). All locations are linked via a local- or wide-area network (LAN or WAN) to a PC with Control Center software for remote observation and system management. An ATM/POS bridge can be used to connect to an ATM or point-of-sale machine.

Technical Specifications

Electrical

Rated Voltage and Power

E and G versions	100-240 VAC; 0.7 - 0.3 A; 50 / 60Hz
F and H versions	100-240 VAC; 0.8 - 0.3 A; 50 / 60Hz

Video

Video standard	PAL / NTSC auto-detect
Resolution	720 x 576 PAL - 720 x 484 NTSC
AGC	Automatic adjustment or manual adjustment for each video input
Digital Zoom	2 or 4 times
Compression	Wavelet
Inputs	Composite video 0.5-2Vpp, 75 ohm auto terminating
Outputs:	1Vpp, 75 Ohm
BiPhase	Impedance 128 ohm, max. overvoltage protection $\pm 40V$, max. cable length 1.5km

Alarm Handling

Inputs	16 Inputs configurable NO/NC, max. input 40VDC
Outputs	4 Relay outputs, configurable NO/NC, max. rated 30VAC-40VDC-0,5A continuous -10VA

Control

RS232	Output signals according EIA/TIA-232-F, max. input voltage $\pm 25V$
Keyboard input	Conform RS485, max. signal voltage $\pm 12V$, power supply to keyboard 11V-12.6V at max. 400mA
Keyboard output	Conform RS485, max. signal voltage $\pm 12V$

Connectors

Video inputs	6, 9 or 16 looping BNC, auto-terminating
Ethernet	RJ45S modular jack 8 pins shielded: 10/100 Base-T according IEEE802.3
Monitors	BNC (2), MON-A multi-screen, MON-B spot/alarm
Alarm Accessories	Screw terminal input
BiPhase	Screw terminal output
RS232	DB9 male
Keyboard input	RJ11 modular jack 6 pins
Keyboard output	RJ11 modular jack 6 pins
SCSI	HD 50 pins max. 7 (E and G versions) / 6 (F and H versions) connected ultra SCSI devices, 20 Mbytes/sec, terminated internally

Storage

Internal	80 - 160 - 320 - 600 GB
	Expandable via SCSI-2 with external storage arrays type DVAD or DVAS to a maximum of 17TB

File sizes

High quality	40 KB
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Rated Voltage and Power

Medium quality	24 KB
Standard quality	16 KB

Record Rate (IPS):

NTSC	60 total, configurable per camera: 30, 15, 10, 7.5, 6, 5, 4, 3, 2, 1, 1/2, 1/5, 1/10, 0
PAL	50 total, configurable per camera: 25, 12.5, 8, 6, 5, 4, 3, 2, 1, 1/2, 1/5, 1/10, 0
Recording resolution:	720 x 288 PAL - 720 x 242 NTSC

Display Modes

Mon A	Full, full sequence, quad, quad sequence, multi-screen, alarm call-up (live and playback)
Mon B	Full, full sequence and alarm call-up

Recording Modes	Linear, Continuous, Continuous with conditional overwrite
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Mechanical**Dimensions**

E and G versions	442 x 315 x 45 mm (17.4 x 12.4 x 1.8 inch)
F and H versions	442 x 315 x 66 mm (17.4 x 12.4 x 2.6 inch)

Weight

E and G versions	Approx. 5.8 kg (12.8 lbs)
F and H versions	Approx. 7.5 kg (16.5 lbs)

Rack Mount Kit	For mounting one unit in an EIA 19-inch rack.
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Environmental**Temperature**

- Operating Temperature	
E and G versions	+0°C to +40°C (+32°F to +104°F)
F and H versions	+5°C to +40°C (+41°F to +104°F)
- Storage Temperature	
	-25°C to +70°C (-13°F to +158°F)

Relative humidity

- Operating	<93% Non-condensing
- Storage	<95% Non-condensing

Electromagnetic compatibility**EMC requirements**

- USA	FCC Part 15, Class B
- EU	EMC directive 89/336/EEC
Immunity	EN50130-4
Emission	EN55022 Class B
Mains Harmonics	EN61000-3-2
Voltage fluctuations	EN61000-3-3

Safety

- USA	UL6500 2nd edition
- EU	EN60950: 2000
- Can.	CAN/CSA-E60065-00

Minimum PC System Requirements

Control Center (CC) and Configuration Tool (CT)	
Operating system	Windows 98, Millenium, NT 4.0, 2000 or XP
Processor	450 MHz Pentium II for CC, 200 MHz Pentium with MMX for CT
RAM memory	128 MB for CC, 32 MB for CT
Free disk space	50 MB for CC, 15 MB for CT
Video system	8 MB video memory, 800 x 600 with 16-bit color
Connection	10/100-BaseT network interface or free RS-232 port (CT only)

Ordering Information

DVR6E1082 Divar Digital Video Recorder 6 channel, with network I/F, 80 GB	DVR6E1082
DVR6E1162 Divar Digital Video Recorder 6 channel, with network I/F, 160 GB	DVR6E1162
DVR6E2162 Divar Digital Video Recorder 6 channel, with network I/F, 320 GB	DVR6E2162
DVR6E2302 Divar Digital Video Recorder 6 channel, with network I/F, 600 GB	DVR6E2302
DVR9E1082 Divar Digital Video Recorder 9 channel with network I/F, 80 GB	DVR9E1082
DVR9E1162 Divar Digital Video Recorder 9 channel with network I/F, 160 GB	DVR9E1162
DVR9E2162 Divar Digital Video Recorder 9 channel with network I/F, 320 GB	DVR9E2162
DVR9E2302 Divar Digital Video Recorder 9 channel with network I/F, 600 GB	DVR9E2302
DVR16E1082 Divar Digital Video Recorder 16 channel, with network I/F, 80 GB	DVR16E1082
DVR16E1162 Divar Digital Video Recorder 16 channel, with network I/F, 160 GB	DVR16E1162
DVR16E2162 Divar Digital Video Recorder 16 channel, with network I/F, 320 GB	DVR16E2162
DVR16E2302 Divar Digital Video Recorder 16 channel, with network I/F, 600 GB	DVR16E2302
DVR6F1082 Divar Digital Video Recorder 6 channel, with network I/F, 80GB with internal DVD	DVR6F1082
DVR6F1162 Divar Digital Video Recorder 6 channel, with network I/F, 160GB with internal DVD	DVR6F1162
DVR6F2162 Divar Digital Video Recorder 6 channel, with network I/F, 320GB with internal DVD	DVR6F2162
DVR6F2302 Divar Digital Video Recorder 6 channel, with network I/F, 600GB with internal DVD	DVR6F2302
DVR9F1082 Divar Digital Video Recorder 9 channel with network I/F, 80GB with internal DVD	DVR9F1082

Ordering Information

DVR9F1162 Divar Digital Video Recorder 9 channel, with network I/F, 160GB with internal DVD	DVR9F1162
DVR9F2162 Divar Digital Video Recorder 9 channel, with network I/F, 320GB with internal DVD	DVR9F2162
DVR9F2302 Divar Digital Video Recorder 9 channel with network I/F, 600GB with internal DVD	DVR9F2302
DVR16F1082 Divar Digital Video Recorders 16 channel, with network I/F, 80GB with internal DVD	DVR16F1082
DVR16F1162 Divar Digital Video Recorders 16 channel with network I/F, 160GB with internal DVD	DVR16F1162
DVR16F2162 Divar Digital Video Recorder 16 channel, with network I/F, 320GB with internal DVD	DVR16F2162
DVR16F2302 Divar Digital Video Recorder 16 channel, with network I/F, 600GB with internal DVD	DVR16F2302
DVR6G1082 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 80GB	DVR6G1082
DVR6G1162 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 160GB	DVR6G1162
DVR6G2162 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 320GB	DVR6G2162
DVR6G2302 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 600GB	DVR6G2302
DVR9G1082 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 80GB	DVR9G1082
DVR9G1162 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 160GB	DVR9G1162
DVR9G2162 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 320GB	DVR9G2162
DVR9G2302 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 600GB	DVR9G2302
DVR16G1082 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 80GB	DVR16G1082
DVR16G1162 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 160GB	DVR16G1162
DVR16G2162 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 320GB	DVR16G2162

Ordering Information

DVR16G2302 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 600GB	DVR16G2302
DVR6H1082 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 80 GB, with internal DVD	DVR6H1082
DVR6H1162 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 160GB, with internal DVD	DVR6H1162
DVR6H2162 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 320 GB, with internal DVD	DVR6H2162
DVR6H2302 Divar with Bilinx Digital Video Recorder 6 channel, with network I/F, 600GB, with internal DVD	DVR6H2302
DVR9H1082 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 80GB, with internal DVD	DVR9H1082
DVR9H1162 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 160GB, with internal DVD	DVR9H1162
DVR9H2162 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 320GB, with internal DVD	DVR9H2162
DVR9H2302 Divar with Bilinx Digital Video Recorder 9 channel, with network I/F, 600GB, with internal DVD	DVR9H2302
DVR16H1082 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 80 GB, with internal DVD	DVR16H1082
DVR16H1162 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 160 GB, with internal DVD	DVR16H1162
DVR16H2162 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 320 GB, with internal DVD	DVR16H2162
DVR16H2302 Divar with Bilinx Digital Video Recorder 16 channel, with network I/F, 600 GB, with internal DVD	DVR16H2302
Accessories	
KBD-Digital Keyboard IntuiKey Digital Keyboard for use with Divar Digital Video Recorders and System4 Multiplexers	KBD-Digital

Ordering Information

KBD-Universal Keyboard IntuiKey Universal Keyboard for use with LCD Displays for Allegiant, Divar and System4 Multiplexers	KBD-universal
DVAS0430 Digital Video Array RAID 5, with 4 – 300 GB HDD, 120/240 VAC, 50/60 Hz	DVAS0430
DVAS0830 Digital Video Array RAID 5, with 8 – 300 GB HDD, 120/240 VAC, 50/60 Hz	DVAS0830
DVAS1430 Digital Video Array RAID 5, with 14 – 300 GB HDD, 120/240 VAC, 50/60 Hz	DVAS1430
DVAD0230 Digital video array, low profile, 2 – 300 GB internal HDD, 120 / 230 VAC, 50 / 60 Hz	DVAD0230
DVAD0430 Digital video array, low profile, 4 – 300 GB internal HDD, 120 / 230 VAC, 50 / 60 Hz	DVAD0430
DVRXEDVD1 Divar External CD/DVD Writer 100 - 240 VAC, 0.3 - 0.15 A, 50 / 60 Hz	DVRXEDVD1
DVRXEAP01 ATM/POS Bridge (Accessories) ATM/POS bridge Divar	DVRXEAP01
LTC 2605/91 System4 Video Manager for use with Divar and System 4 Multiplexers, 105–253 VAC, 50/60 Hz	LTC2605/91
LTC 8557/50 Keyboard Extension Kit Hook-up kit for remote keyboard, up to 1.5 km (5000 ft), includes power supply for 230 VAC, 50 Hz	LTC8557/50
LTC 8557/60 Keyboard Extension Kit Hook-up-kit for remote keyboard, up to 1.5 km (5000 ft), includes power supply for 120 VAC, 60 Hz	LTC8557/60
LTC 2604/50 Keyboard Port Expander Unit System4, 230 V, 50 Hz	LTC2604/50
LTC 2604/60 Keyboard Port Expander Unit System4, 120 V, 60 Hz	LTC2604/60
Software Options	
DVRSEUG12 Divar-1 Upgrade License	DVRSEUG12
DVRSEAP01 ATM/POS License DIVAR	DVRSEAP01

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