


BOSCH

Invented for life

700 Series Hybrid/Network Recorder



- ▶ **Real-time H.264 recording and playback in genuine 4CIF resolution for up to 32 cameras simultaneously**
- ▶ **Hybrid models offer up to 16 analog and 16 IP camera channels; IP-only models offer up to 32 IP camera channels**
- ▶ **Fully automated assignment and management of H.264 IP cameras**
- ▶ **Internal storage up to 8 TB on four front-accessible hard drives with optional on-board RAID-4 support**
- ▶ **Text support for storage and retrieval of video, synchronized to external data like ATM/POS data, license plate numbers, or GPS data**

The Bosch 700 Series Hybrid and Network Recorders offer top-of-the-line performance and adaptability. Equipped with four front-replaceable hard drives and extensive integration features, the 700 Series is ideal for medium to large-scale systems. 700 Series' superior image quality and compression gets the most out of CCTV images. Available in both IP-only and hybrid models, the 700 Series can handle even the most challenging CCTV applications without excessive demands from installers and operators.

Functions

High performance H.264

With real-time viewing, recording, and playback in genuine 4CIF resolution, 700 Series Recorders capture all the details. More detail typically means increased bandwidth, larger storage requirements, and increased costs – but not with the 700 Series. Bosch's advanced H.264 compression technology used in the 700 Series reduces bandwidth and storage needs by up to 30% or more, compared to traditional MPEG-4 systems.

Embedded design

The embedded design of the 700 Series Recorder offers a higher level of security against network attacks than traditional systems and has lower maintenance requirements. The security of recordings remains high while eliminating the need to install software patches and anti-virus updates. The integrated architecture, built-in installation wizards, and low-maintenance design make the 700 Series easy to set up and operate while delivering a lower total cost of ownership.

Hybrid Models

The world of CCTV is changing – IP is replacing the analog standard in many areas. Bosch's 700 Series Recorders have the flexibility to adapt to this changing environment.

The 700 Series Hybrid Recorder is the ideal choice for growing applications which use a mix of analog and IP cameras. It can record 8 or 16 analog cameras and an additional 8 or 16 IP channels, all with real-time frame rates at 4CIF resolution.

Network Models

The 700 Series Network Recorder is the perfect match for pure IP environments. While typical IP solutions consist of many separate components – NVR Server, PC Client, external RAID storage array and software – the 700 Series Network Recorder is an all-in-one IP video management solution.

With support for a total of 32 H.264 cameras and a fully automated, onboard IP camera management system, 700 Series is straight forward to set up and maintain right out-of-the-box.

Power to integrate

Bosch’s VideoSDK provides a complete toolbox of modules for playback, searching, viewing live images, and more – simplifying integration with other surveillance systems. The VideoSDK even allows integration with specialized software tools such as fraud detection programs for retail applications.

Control of 700 Series Recorders can be automated using CLI (Command Language Interface) commands. This allows the 700 Series to be interfaced with external software (over RS232 or IP), which is typically used to sense alarms or handle access control on an existing (embedded) computer system. Functions include front panel emulation, configuration, and viewing status information. For instructions on how to use the CLI, please refer to the documentation on the Bosch Security Systems website.

Record text data together with associated video (e.g. from an ATM machine, license plate reader, or cash register) using the text support feature. Searching text data allows fast retrieval of the associated video and provides legal evidence in the event of fraud.

Flexible and reliable storage

Access the four internal hard drives via the front without opening the unit, thus simplifying service and making it easy to add additional storage on-site when needed. Configure the disks as a RAID 4 array for extra reliability.

Expand storage further with an external Bosch iSCSI video storage array. This makes the 700 Series ideal for applications requiring continuous recording at the highest resolution, frame rate, and retention time.

Ease of use

Find key events in recorded video quickly by utilizing the unit’s smart search to find changes only in selected areas. Compare past and present events by simultaneously viewing live images with playback scenes.

Export recordings by simply downloading them to a USB memory device, burning them to the optional built-in DVD recorder, or exporting them remotely via the Control Center software. The 700 Series makes it easy to manage and transport images. All video is digitally watermarked to ensure the credibility of recordings.

The unit’s intuitive interface with clear, menu-driven options is quick to learn and easy to use. Choose from a selection of control devices, including a mouse or CCTV keyboard. With the keyboard loop-through feature, up to sixteen 700 Series Recorders can be controlled from a single IntuiKey keyboard.

Flexibility is also abundant with its extensive range of advanced functionality. Other convenient features include remote playback capability and dual VGA monitor support. Live viewing, playback, configuration, remote management – it is all simple and straightforward with the 700 Series.

Comprehensive interfaces

Flexible interface options make it easy to connect to a variety of external devices.

- Up to 16 analog video inputs and 16 IP camera inputs on hybrid models, or up to 32 IP camera inputs on IP-only models
- Up to 16 audio inputs(DHR Models only) and two dual-mono audio outputs
- One or two monitor (DHR models only) outputs on VGA, CVBS, and Y/C outputs
- Up to 4 front-replaceable hard disks with optional RAID-4 support
- One or two Ethernet 10/100/1000 BaseT network connections
- Up to 16 alarm inputs and 5 relay outputs
- Biphase connection allows one cable to control Bosch PTZ cameras at a range of up to 1.5 km / 0.9 miles
- Third-party PTZ control via RS422/RS485 connection (Pelco D protocol)
- Bosch IntuiKey support with loop-through function
- Bosch Video Manager support (including Keyboard Expander LTC2604/x0)
- USB connectors front and back – connect a mouse to control the user interface, or archive video to a USB memory stick or similar device
- Optional built-in DVD recorder
- Text support for storage and retrieval of video synchronized to external data like ATM/POS data, License plate numbers, or GPS data

Applications

The 700 Series Recorder is ideal for:

- Shopping centers and retail applications
- Banks and financial institutions
- City centers and public monitoring applications
- Crowd surveillance
- Casinos and hotel complexes

Certifications and Approvals

Region	Certification
Europe	CE Declaration of Conformity DNR models Declaration of Conformity DHR models
USA	FCC Declaration of Conformity DNR models Declaration of Conformity DHR models

Electromagnetic compatibility

USA	FCC Part 15, Class B
EU	EMC directive 2004/108/EC
Immunity	EN50130-4
Emission	EN55022 Class B

Electromagnetic compatibility

Mains Harmonics	EN61000-3-2
Voltage fluctuations	EN61000-3-3
Alarm standard	EN50130-5:1998

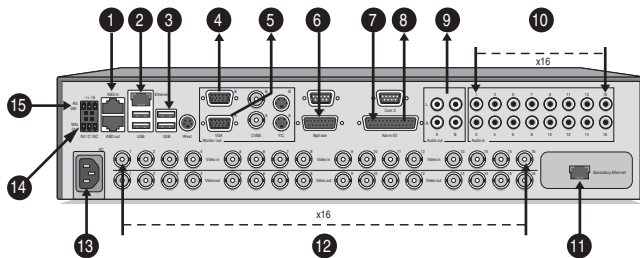
Safety

USA	UL60950-1
EU	EN60950-1
Can	CSA C22.2 No. 60950-1

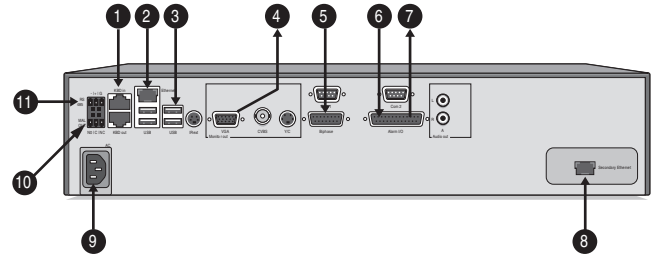
Installation/Configuration Notes

Recommended PC requirements for Control Center

Operating system	Windows XP, Vista, or 7
	DirectX 9c
Processor	Intel Pentium DualCore, 3.0 GHz or comparable
RAM memory	2048 MB or more
Free disk space	10 GB
Graphics card	NVIDIA GeForce 8600 or higher
Network interface	10/100/1000 BaseT



- 1 Keyboard input and looped-through output
- 2 Ethernet
- 3 USB ports
- 4 B monitor connections (VGA, CVBS, Y/C)
- 5 A monitor connections (VGA, CVBS, Y/C)
- 6 Biphas connection
- 7 Alarm inputs
- 8 Alarm outputs
- 9 Audio outputs
- 10 Audio inputs
- 11 Secondary Ethernet (2 GigE versions)
- 12 Camera loop through
- 13 Power input
- 14 Malfunction alarm output
- 15 RS485 port



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- 7 Alarm outputs
- 8 Secondary Ethernet (2 GigE versions)
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Parts Included

Quantity	Component
1	Divar 700 Series Recorder
2	Power supply cords
1	USB mouse
1	CD-ROM containing the software and manuals
1	Quick installation guide
1	Installation and operation manual
1	Divar 700 Series Control Center operation manual
1	Divar 700 Series Archive Player operation manual

Technical Specifications

Electrical

Rated Voltage and Power

Power input	100 to 240 VAC; 50/60 Hz
Power consumption	Max. 2.5 to 1.0 A (250 Watt) Able to withstand power dips up to 100 MS, as- suring continuous operation

Video

Video standard	PAL or NTSC auto-detection
Resolution	704x576 PAL, 704x480 NTSC
Compression	H.264
Inputs	8 or 16 composite video 0.5 to 2 Vpp, 75 ohm automatic termination
Outputs	8 or 16 composite video 1 Vpp, 75 ohm, sync 0.3 V ± 10%

Audio

Inputs	8 or 16 line in (DHR models only), mono RCA, 1 Vpp, 10 kohm
Output	2 line out, dual mono RCA, 1 Vpp, 10 kohm
Compression	MPEG-1 layer II
Sampling rate	48 kHz per channel

Monitors

MON-A	Live, playback, menus VGA: analog RGB 1280x1024, 60/75 Hz (NTSC/PAL) CVBS: 1 Vpp, 75 ohm, BNC Y/C
MON-B (Hybrid models only)	Live VGA: analog RGB 1024x768, 60/75 Hz (NTSC/PAL) CVBS: 1 Vpp, 75 ohm, BNC Y/C

Display Modes

Monitor A	Full, full sequence, quad, multi-screen (live and playback), event call-up (live)
Monitor B (Hybrid models only)	Full, full sequence, quad, multi-screen, event call-up (live)
Frame rate PAL/NTSC	25/30 IPS per channel (real time)
Multiscreen mode 8 channels	1, 2x2, 3x3 (showing 8 channels)
Multiscreen mode 16 channels	1, 2x2, 3x3, 4x4
Zoom	1.5x, 2x, 3x, 5x

Alarm Handling

Inputs	Screw terminal, 8 or 16 inputs, configurable NO/NC, Max. input 40 VDC
Outputs	Screw terminal 4 relay outputs, configurable NO/NC, max. rated 30 VAC, 40 VDC, 0.5 A, continuous -10 VA
Remote notification	Via Control Center software
Malfunction relay	Temperature related failures, Voltage ratings, Disk failures

Connections

Ethernet	1 or 2 RJ45 modular jack, 8 pins shielded: 10/100/1000 Base-T
Biphase	Screw terminal connector (5 outputs) Maximum 5 controllable cameras per Biphase output Impedance 128 ohm, max. overvoltage protection ±40 V, max. cable length 1.5 km (0.9 miles)

Note: LTC 8785 translator needed for fixed-speed receivers/drivers

PTZ control interface	RS485
Serial interface	RS232 output signals according to EIA/TIA-232 F, max. input voltage ±25 V 2xD9-9 male connector
Intuikey keyboard (KBD Digital or KBD Universal)	Conforms to RS485, max. signal voltage ±12 V, power supply to keyboard 11 to 12.6 VDC at max. 400 mA RJ11 modular jack 6 pins
USB	Five USB 2.0 ports
10/100/1000 Base-T network interfaces (max 2)	Connect with Bosch iSCSI Video Storage Arrays

Network

Bandwidth control	0.1-100 Mbps limiter
Remote users	Maximum 5 simultaneously connected Control Center users
Protocol support	TCP/IP, DHCP, DNS, and SNTP
IP cameras	Up to 16 IP H.264 for DHR models (optional) Up to 32 IP H.264 cameras for DNR models (optional)
Supported IP H.264 devices	Dinion, FlexiDome, AutoDome Modular, EX series IP cameras, VIP X series encoders (running firmware 3.7 or later, and AutoDome Easy IP)

Storage

Internal HDD	500 GB, 1 or 2 TB per disk Up to 4 hard disks
Redundancy	RAID-4 (4 hard disks plus optional license required) Effective storage = Smallest disk x 3

Exporting

DVD	Built-in DVD+R/RW recorder (optional)
USB	Flash memory or external HDD (FAT32)
Network	Control Center Software

Security

Password protection	Multi-level
Image authentication	All recordings and archives in native file format

Record Frame Rate

NTSC	Up to 30 IPS per channel at 352x240, 704x240 and 704x480
PAL	Up to 25 IPS per channel at 352x288, 704x288 and 704x576
IP Channels	Up to 25/30 IPS per channel at 4CIF

Recording

Overwrite modes	Continuous, overwrite after 1 to 99 days
Pre-alarm recording	Up to 120 s

Playback

Playback function	Fast forward/reverse, frame forward/reverse, freeze
Zoom	1.5x, 2x, 3x, 5x
Search mode	Date/time, Event (motion, input), Text, Smart Search

Mechanical

Dimensions (W x D x H) (excluding cabling)	446 x 443 x 88 mm (17.6 x 17.4 x 3.5 in)
Weight (incl. 4 hard disks)	Approx. 11 kg / 24 lbs
Rack mount kit (included)	For mounting one unit in an EIA 19" rack

Environmental

Operating temperature	+5 °C to +45 °C (+41 °F to +113 °F)
Storage temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Relative humidity	Operating: <93 % non-condensing Storage: <95 % non-condensing

Model options

	Hybrid/ IP	AN CH	IP CH st/max	DIGI in/out	DVD	GigE
DHR-730-08AXXX	Hybrid	8	0/8	8/5		1
DHR-732-08AXXX	Hybrid	8	0/8	8/5	x	1
DHR-751-16AXXX	Hybrid	16	0/16	16/5		1
DHR-753-16AXXX	Hybrid	16	0/16	16/5	x	1
DHR-754-16AXXX	Hybrid	16	0/16	16/5	x	2
DNR-732-08AXXX	IP only	0	8/16	8/5	x	1
DNR-753-16AXXX	IP only	0	16/32	16/5	x	1
DNR-754-16AXXX	IP only	0	16/32	16/5	x	2

XXX**Equals model storage options:**

000	0000 GByte HDD
050	0500 GByte HDD (1 drive)
200	2000 GByte HDD (1 drive)
400	4000 GByte HDD (2 drive)
800	8000 GByte HDD (4 drive)

Note

RAID operation requires a 4-drive system and a DHR-SRAID-A license.

Ordering Information

DHR-730-08A000 Digital Hybrid Recorder 730 Series DHR, 1 GigE, 8 CH, 0 GB	DHR-730-08A000
DHR-730-08A050 Digital Hybrid Recorder 730 Series DHR, 1 GigE, 8 CH, 500 GB	DHR-730-08A050
DHR-730-08A200 Digital Hybrid Recorder 730 Series DHR, 1 GigE, 8 CH, 2 TB	DHR-730-08A200
DHR-730-08A400 Digital Hybrid Recorder 730 Series DHR, 1 GigE, 8 CH, 4 TB	DHR-730-08A400
DHR-730-08A800 Digital Hybrid Recorder 730 Series DHR, 1 GigE, 8 CH, 8 TB	DHR-730-08A800
DHR-751-16A000 Digital Hybrid Recorder 750 Series DHR, 1 GigE, 16 CH, 0 GB	DHR-751-16A000
DHR-751-16A050 Digital Hybrid Recorder 750 Series DHR, 1 GigE, 16 CH, 500 GB	DHR-751-16A050
DHR-751-16A200 Digital Hybrid Recorder 750 Series DHR, 1 GigE, 16 CH, 2 TB	DHR-751-16A200
DHR-751-16A400 Digital Hybrid Recorder 750 Series DHR, 1 GigE, 16 CH, 4 TB	DHR-751-16A400
DHR-751-16A800 Digital Hybrid Recorder 750 Series DHR, 1 GigE, 16 CH, 8 TB	DHR-751-16A800
DHR-732-08A000 Digital Hybrid Recorder 730 Series DHR, DVD, 1 GigE, 8 CH, 0 GB	DHR-732-08A000
DHR-732-08A050 Digital Hybrid Recorder 730 Series DHR, DVD, 1 GigE, 8 CH, 500 GB	DHR-732-08A050
DHR-732-08A200 Digital Hybrid Recorder 730 Series DHR, DVD, 1 GigE, 8 CH, 2 TB	DHR-732-08A200
DHR-732-08A400 Digital Hybrid Recorder 730 Series DHR, DVD, 1 GigE, 8 CH, 4 TB	DHR-732-08A400
DHR-732-08A800 Digital Hybrid Recorder 730 Series DHR, DVD, 1 GigE, 8 CH, 8 TB	DHR-732-08A800
DHR-753-16A000 Digital Hybrid Recorder 750 Series DHR, DVD, 1 GigE, 16 CH, 0 GB	DHR-753-16A000
DHR-753-16A050 Digital Hybrid Recorder 750 Series DHR, DVD, 1 GigE, 16 CH, 500 GB	DHR-753-16A050
DHR-753-16A200 Digital Hybrid Recorder 750 Series DHR, DVD, 1 GigE, 16 CH, 2 TB	DHR-753-16A200
DHR-753-16A400 Digital Hybrid Recorder 750 Series DHR, DVD, 1 GigE, 16 CH, 4 TB	DHR-753-16A400
DHR-753-16A800 Digital Hybrid Recorder 750 Series DHR, DVD, 1 GigE, 16 CH, 8 TB	DHR-753-16A800
DNR-732-08A000 Digital Network Recorder 730 Series DNR, DVD, 1 GigE, 8 CH, 0 GB	DNR-732-08A000
DNR-732-08A050 Digital Network Recorder 730 Series DNR, DVD, 1 GigE, 8 CH, 500 GB	DNR-732-08A050
DNR-732-08A200 Digital Network Recorder 730 Series DNR, DVD, 1 GigE, 8 CH, 2 TB	DNR-732-08A200

Ordering Information

DNR-732-08A400 Digital Network Recorder 730 Series DNR, DVD, 1 GigE, 8 CH, 4 TB	DNR-732-08A400
DNR-732-08A800 Digital Network Recorder 730 Series DNR, DVD, 1 GigE, 8 CH, 8 TB	DNR-732-08A800
DNR-753-16A000 Digital Network Recorder 750 Series DNR, DVD, 1 GigE, 16 CH, 0 GB	DNR-753-16A000
DNR-753-16A050 Digital Network Recorder 750 Series DNR, DVD, 1 GigE, 16 CH, 500 GB	DNR-753-16A050
DNR-753-16A200 Digital Network Recorder 750 Series DNR, DVD, 1 GigE, 16 CH, 2 TB	DNR-753-16A200
DNR-753-16A400 Digital Network Recorder 750 Series DNR, DVD, 1 GigE, 16 CH, 4 TB	DNR-753-16A400
DNR-753-16A800 Digital Network Recorder 750 Series DNR, DVD, 1 GigE, 16 CH, 8 TB	DNR-753-16A800
DHR-754-16A000 Digital Hybrid Recorder 750 Series DHR, DVD, 2 GigE, 16 CH, 0 GB	DHR-754-16A000
DHR-754-16A050 Digital Hybrid Recorder 750 Series DHR, DVD, 2 GigE, 16 CH, 500 GB	DHR-754-16A050
DHR-754-16A200 Digital Hybrid Recorder 750 Series DHR, DVD, 2 GigE, 16 CH, 2 TB	DHR-754-16A200
DHR-754-16A400 Digital Hybrid Recorder 750 Series DHR, DVD, 2 GigE, 16 CH, 4 TB	DHR-754-16A400
DHR-754-16A800 Digital Hybrid Recorder 750 Series DHR, DVD, 2 GigE, 16 CH, 8 TB	DHR-754-16A800
DNR-754-16A000 Digital Network Recorder 750 Series DNR, DVD, 2 GigE, 16 CH, 0 GB	DNR-754-16A000
DNR-754-16A050 Digital Network Recorder 750 Series DNR, DVD, 2 GigE, 16 CH, 500 GB	DNR-754-16A050
DNR-754-16A200 Digital Network Recorder 750 Series DNR, DVD, 2 GigE, 16 CH, 2 TB	DNR-754-16A200
DNR-754-16A400 Digital Network Recorder 750 Series DNR, DVD, 2 GigE, 16 CH, 4 TB	DNR-754-16A400
DNR-754-16A800 Digital Network Recorder 750 Series DNR, DVD, 2 GigE, 16 CH, 8 TB	DNR-754-16A800

Ordering Information

Accessories	
DHR-XS050-A 700 Series Storage Expansion 500 GB 500 GB storage expansion kit	DHR-XS050-A
DHR-XS100-A 700 Series Storage Expansion 1 TB 1 TB storage expansion kit	DHR-XS100-A
DHR-XS200-A 700 Series Storage Expansion 2 TB 2 TB storage expansion kit	DHR-XS200-A
DVRXEAP01 ATM/POS Bridge ATM/POS bridge Divar	DVRXEAP01
KBD-Digital Keyboard IntuiKey Digital Keyboard for use with Divar Digital Video Recorders, System4 Multiplexers, Bosch VMS, and VIDOS	KBD-DIGITAL
KBD-Universal Keyboard IntuiKey Universal Keyboard for use with Allegiant, Divar, System4 Multiplexers, Bosch VMS, and VIDOS	KBD-UNIVERSAL
LTC 2604/50 Keyboard Port Expander Unit System4, 230 V, 50 Hz	LTC 2604/50
LTC 2604/60 Keyboard Port Expander Unit System4, 120 V, 60 Hz	LTC 2604/60
LTC 2605/91 Video Manager for use with Divar all Series 1 & 2 models and System4 Multiplexer, 120/230 VAC, 50/60 Hz	LTC 2605/91
REG-SENTRY-00-1EU REG Sentry Access Control Access Control REG Sentry-00, No Camera	REG-SENTRY-00-1EU
REG-SENTRY-X-1EU REG Sentry Access Control Access Control REG Sentry-X, 16 mm PAL	REG-SENTRY-X-1EU
Software Options	
DHR-SIP01-A 700 Series License 1 IP 700 Series License 1 IP	DHR-SIP01-A
DHR-SIP04-A 700 Series License 4 IP 700 Series 4 IP License	DHR-SIP04-A
DHR-SIP08-A 700 Series License 8 IP 700 Series 8 IP License	DHR-SIP08-A
DHR-SRAID-A 700 Series License RAID 700 Series RAID License	DHR-SRAID-A
DXS-700 Series Text license 700 Series Text license	DXS-700-Text

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