

# Digital Video Recorder 440/480 Series

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Advantage Line

The Bosch Video Recorder 440/480 Series is a 4/8 channel digital recorder that uses the latest H.264 compression technology. With the supplied Control Center software and built-in web server, the 440/480 Series is a fully integrated, stand-alone video solution that's ready to go, straight out of the box.

Available in 4-channel and 8-channel versions, the 440/480 Series features a highly reliable embedded design that minimizes maintenance and operational costs.

## Features

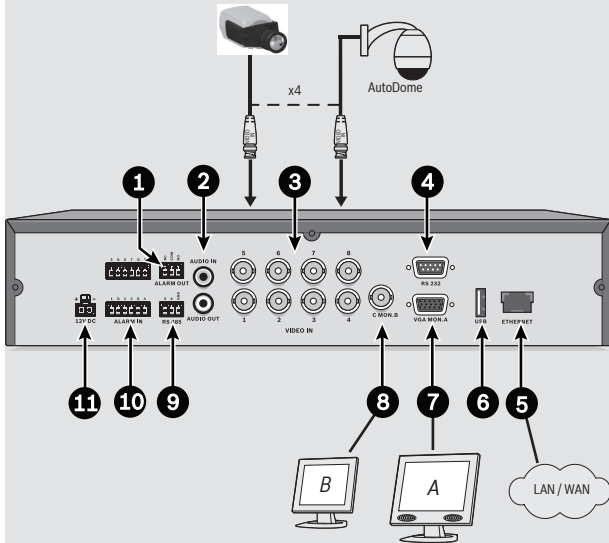
- ▶ 4/8-Channel real-time recording
- ▶ Flexible viewing with two monitor outputs
- ▶ Remote viewing, playback, control, and configuration
- ▶ Easy Pan/Tilt/Zoom camera control
- ▶ DVR viewer iPhone App

### Technical specifications

Electrical	
<b>Rated Voltage and Power</b>	
External power adapter AC input	110–240 VAC; 50/60 Hz; 1.8 A
External power adapter DC output	12 VDC; 3 A
DVR Power input	12 VDC; 3 A
<b>Video</b>	
Video Standard	SVGA PAL / NTSC auto-detect
Live Resolution	SVGA: 800x600, 1024x768 or 1280x1024 PAL: 720x576, NTSC: 720x484
Digital Zoom	2 times
AGC	Automatic gain adjustment for each video input
Compression	H.264
Inputs	Composite video 1 Vpp, 75 ohm, automatic termination
Outputs	Monitor A: VGA RGB Monitor B: 1 Vpp, 75 ohm, sync. 0.3 V ±10%
<b>Audio</b>	
Input	Mono RCA, 1.0 Vpp
Output	Mono RCA, 1.0 Vpp
Compression	ADPCM
Sample rate	16 kHz per channel
Bit rate	8-bit
<b>Alarm Handling</b>	
Inputs	4/8 Inputs configurable NO/NC, max input voltage 15 VDC
Outputs	1 Relay output, configurable NO/NC, max. rated 30 VAC, 30 VDC 0.5 A continuous
<b>Control</b>	
RS232	Output signals according to EIA/TIA-232-F, max. input voltage ±25 V
RS232 Support	Bosch domes via RS232/Bi-phase converter
RS485	Output signals according to RS485, max. signal voltage -8 to +12 V
RS485 Support	Bosch domes, and Pelco P and D
<b>Connectors</b>	
Video Inputs	4/8 BNC
Monitor	1 VGA d-SUB, 1 BNC
Alarm connectors	Screw terminal inputs, cable diameter AWG26-16 (0.13-1.5 mm)
Audio Inputs	1 RCA (CINCH)
Audio Output	1 RCA (CINCH)
Ethernet	RJ45, 10/100 BaseT according to IEEE802.3
RS232	DB9 Male
RS485	Screw terminal output, cable diameter AWG28-16 (0.08-1.5 mm)
USB	Type A Connector USB 2.0 on front and rear for mouse or USB memory device
<b>Storage</b>	
Hard Disk	Supports 1 SATA hard drive up to 1TB. (Third party hard disks are supported from firmware version 2.0.6 onwards. A list of tested disks is available in the instruction manual.)*
*Bosch cannot be held liable for any loss or damages or system malfunction resulting from the use of non-Bosch drives in DVR recorders.	
<b>Video recording</b>	
Record Rate (IPS)	
NTSC	Max. 30 IPS per channel, configurable: 30, 15, 7.5, 5, 3, 1

PAL	Max. 25 IPS per channel, configurable: 25, 12.5, 6.25, 5, 2.5, 1
Recording Quality	Best, High, Normal, Low, Lowest
<b>Average Recording Capacity</b>	
CIF, Normal, 25/30 IPS	PAL: 550 Hours, NTSC: 685 Hours
CIF, Normal, 6.25/7.5 IPS	PAL: 1400 Hours, NTSC: 1700 Hours
2CIF, Normal, 12.5/15 IPS	PAL: 460 Hours, NTSC: 575 Hours
4CIF, Normal, 6.25/7.5 IPS	PAL: 370 Hours, NTSC: 460 Hours
<b>Maximum recording rates</b>	
Local Stream 8 channels	
4CIF	PAL: 6.25 IPS, NTSC: 7.5 IPS
2CIF	PAL: 12.5 IPS, NTSC: 15 IPS
CIF	PAL: 25 IPS, NTSC: 30 IPS
Local Stream 4 channels	
4CIF	PAL: 12.5 IPS, NTSC: 15 IPS
2CIF	PAL: 25 IPS, NTSC: 30 IPS
CIF	PAL: 25 IPS, NTSC: 30 IPS
Local Stream 2 channels	
4CIF	PAL: 25 IPS, NTSC: 30 IPS
2CIF	PAL: 25 IPS, NTSC: 30 IPS
CIF	PAL: 25 IPS, NTSC: 30 IPS
Local Stream 1 channel	
4CIF	PAL: 25 IPS, NTSC: 30 IPS
2CIF	PAL: 25 IPS, NTSC: 30 IPS
CIF	PAL: 25 IPS, NTSC: 30 IPS
Remote (network) Stream 4 channels	
CIF	PAL: 12.5 IPS, NTSC: 15 IPS
Remote (network) Stream 2 channels	
CIF	PAL: 25 IPS, NTSC: 30 IPS
<b>Display Modes</b>	
Monitor A	Full, multiscreen, sequence (live and playback), alarm call-up (live)
Monitor B	Full, multiscreen, sequence, alarm call-up (live)
<b>Recording Modes</b>	
Normal	Continuous recording (with or without overwriting)
Event	Input and motion recording (with or without overwriting)
<b>Mechanical</b>	
Dimensions (WxDxH) excluding cabling	225 x 325 x 60 mm (8.86 x 12.8 x 2.4 in)
Weight (DVR440)	2.9 kg (6.39 lb) approx. (DVR440) 3 kg (6.61 lb) approx. (DVR480)
<b>Environmental</b>	
Operating temperature	+0°C to +40°C (+32°F to +104°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Operating humidity	<93% non-condensing
Storage humidity	<95% non-condensing
<b>Certifications and approvals</b>	
<b>Region</b>	<b>Certification</b>
Europe	CE
<b>Standards</b>	
	CC Part 15, Subpart B, Class B
	EMC Directive 2004/108/EC
	Immunity: EN50130-4
	Emission: EN55022 Class B
	Harmonics: EN61000-3-2

Voltage fluctuations: EN61000-3-3
UL60950-1
CE, EN60950-1
CAN/CSA-C22.2 no. 60950-1



Connections on rear of DVR 480 (8 channels)

- |                           |                                     |
|---------------------------|-------------------------------------|
| 1. Alarm output           | 7. Monitor A VGA output             |
| 2. Audio input and output | 8. Monitor B output                 |
| 3. Camera inputs          | 9. RS485 connector for dome control |
| 4. RS232 connector        | 10. Alarm inputs                    |
| 5. RJ45 network connector | 11. 12 VDC power connector          |
| 6. USB connector          |                                     |

**Recommended PC requirements for Web support**

Operating system	Windows XP, Windows Vista or Windows 7
Web browser	Internet Explorer 7, 8 or 9
Processor	Intel Core Duo 2.0 GHz or comparable
RAM memory	2048 MB
Free disk space	10 MB
Graphics card	NVIDIA GeForce 8600 or better
Video memory	256 MB
Network interface	10/100-BaseT

**Ordering information**

440 Series DVR, 4ch, base unit	DVR-440-04A000
480 Series DVR, 8ch, base unit	DVR-480-08A000
440 Series DVR, 4ch, 500 GB	DVR-440-04A050
480 Series DVR, 8ch, 500 GB	DVR-480-08A050
480 Series DVR, 8ch, 1 TB	DVR-480-08A100

**Accessories**

DVR-XS050-A Storage Expansion Kit	DVR-XS050-A
DVR-XS100-A Storage Expansion Kit	DVR-XS100-A

**Represented by:**

**Americas:**  
 Bosch Security Systems, Inc.  
 130 Perinton Parkway  
 Fairport, New York, 14450, USA  
 Phone: +1 800 289 0096  
 Fax: +1 585 223 9180  
 security.sales@us.bosch.com  
 www.boschsecurity.us

**Europe, Middle East, Africa:**  
 Bosch Security Systems B.V.  
 P.O. Box 80002  
 5617 BA Eindhoven, The Netherlands  
 Phone: + 31 40 2577 284  
 Fax: +31 40 2577 330  
 emea.securitysystems@bosch.com  
 www.boschsecurity.com

**Asia-Pacific:**  
 Robert Bosch (SEA) Pte Ltd, Security Systems  
 11 Bishan Street 21  
 Singapore 573943  
 Phone: +65 6571 2808  
 Fax: +65 6571 2699  
 apr.securitysystems@bosch.com  
 www.boschsecurity.asia

**China:**  
 Bosch (Shanghai) Security Systems Ltd.  
 201 Building, No. 333 Fuquan Road  
 North IBP  
 Changning District, Shanghai  
 200335 China  
 Phone +86 21 22181111  
 Fax: +86 21 22182398  
 www.boschsecurity.com.cn

**America Latina:**  
 Robert Bosch Ltda Security Systems Division  
 Via Anhanguera, Km 98  
 CEP 13065-900  
 Campinas, Sao Paulo, Brazil  
 Phone: +55 19 2103 2860  
 Fax: +55 19 2103 2862  
 al.securitysystems@bosch.com  
 www.boschsecurity.com