Bosch Recording Station Appliance

www.boschsecurity.com

BOSCH
Invented for life

- ▶ Ready out of the box Recording and Management System for IP video
- ▶ Connect up to 64 video sources per station
- ▶ Supports Bosch H.264/MPEG4, third-party MPEG-4 and JPEG devices, and HD/Megapixel cameras
- ▶ Low bandwidth (WAN) support
- ▶ Interfaces with Bosch intrusion, fire and access solutions

The Bosch Recording Station software is pre-installed on a dedicated Appliance that is ready to go out of the box. The application provides a simple to install and intuitive to use solution for managing multiple locations.

The BRS Appliance is available as stand-alone, all-in-one tower PCs and rack-mounted server units supporting RAID5 redundancy, and comes pre-licensed for 8 IP cameras. Tower units support recording and playback. Rack versions provide recording only, playback is possible via a separate 'viewing station' on a standard PC with BRS Viewer installed.

Building on DiBos technology the Recording Station uses Bosch's proven video management, recording and communications technology and takes IP based video surveillance to a new level. It forms an integral part of overall security solutions for many applications – including banks, large retailers, railway stations, city centers, industrial facilities and office buildings. With Recording Station you can retrieve live and recorded video from anywhere in the network. Whether they are on site or at a remote network location, authorized personnel have quick, convenient access to all information making Recording Station the perfect solution for surveillance over distributed networks.

Recording Station supports live viewing and recording at any resolution up to 2048 x 1536 pixels (3 Megapixel) including HD widescreen resolutions. It manages up to 64 IP video sources (Bosch and 3rd party) that are compatible to the following video compression standards:

- Bosch H.264
- Bosch MPEG-4
- Axis MPEG-4
- MJPEG via HTTP and TFTP

The unique, scalable GUI allows live and recorded images from multiple remote stations to be viewed from a single PC (receiver station). With this powerful function, security managers can monitor and supervise multiple locations simultaneously even if remote stations are connected through a WAN.

Each camera offers in-window pan/tilt/zoom functionality from local or remote facilities. Images are displayed with date/time, location, camera name and the status of connected devices such as detectors and sensors.

Recording Station can be programmed to respond to specific situations and events automatically. In response to alarms, the system can be programmed to record at a higher quality and to transmit images or messages to security personnel.

Playback is easy thanks to familiar search and navigation functions using a graphical timeline control. Users can playback recordings from multiple stations simultaneously and synchronously on one interface. Fast, powerful image search functions like the Smart Motion Search eliminate time consuming manual searches.

Export the video to an archive with the push of a single button - all digitally watermarked to ensure the credibility of your recordings. You can even export multiple cameras from different recorders. Use the scheduled export to recurrently backup your recordings on various storage devices, such as external disk arrays and NAS (network attached storage).

To ensure the highest security, all system access is controlled by multiple user authorization levels which determine individual permissions for each user to a very high level of detail. These authorization levels determine what a user can do in the system. Elements such as camera viewing and control, playback and export of recordings, as well the types of system configuration settings that are allowed can be individually configured.

Events, such as login, log-off, status changes, image transmission, video export, and system shutdown are logged in a database and can be easily imported to spreadsheet programs like MS Excel. Video authentication is built-in to detect any attempt to alter the recorded images.

Recording Station provides various interfaces to other systems such as Bosch access solutions and alarm panels, as well as external systems like ATM and POS terminals, fire alarm systems, number plate capture equipment and video content analysis solutions. Integration with other security and building management systems can be accomplished using the VideoSDK providing a complete toolbox of modules for playback, searching, viewing and much, much more.

Use Recording Station in a LAN environment with Bosch Video Management System to advance to a true enterprise solution which provides a comprehensive feature set such as centralized user, event and alarm management, multi-monitor workstations with zoom able sitemaps and CCTV keyboard control.
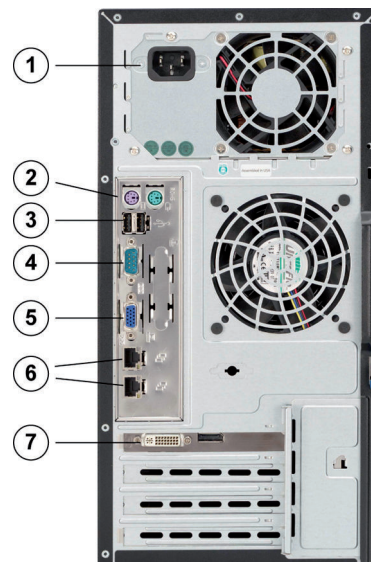
System Overview

Bosch Recording Station Tower

Front view:
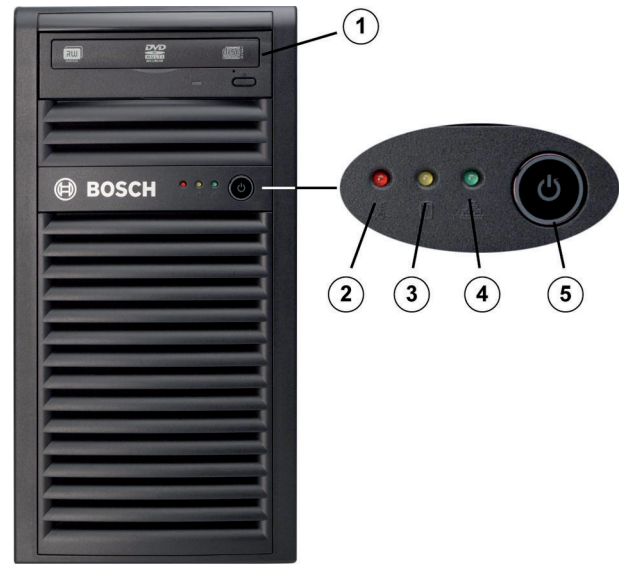
1	DVD writer	4	NIC
2	Overheat/Fan Fail	5	Power on/off
3	HDD		

Rear view:

1	Mains connection 100 - 240 VAC, 50 - 60 Hz	5	Do not use !
2	Keyboard - Mouse **Note:** We recommend using PS2 mouse and keyboard.	6	2x Ethernet (RJ45)

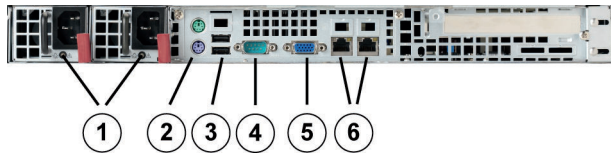|			
3	2x USB	7	Monitor (DVI)
4	Serial interface COM1		

Bosch Recording Station 19-inch 1U
(not available in APR)
Front view:
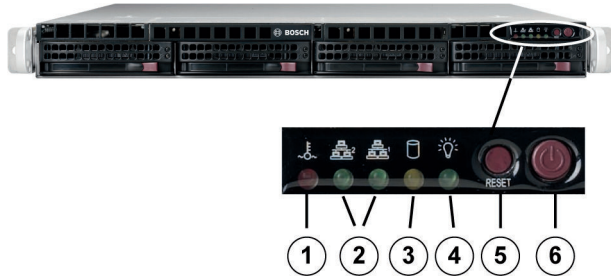
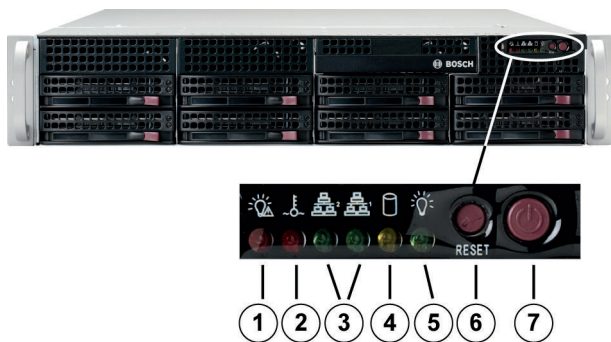|			
1	Overheat/Fan Fail	4	Power
2	NIC1/NIC2	5	Reset
3	HDD	6	Power on/off

Rear view:

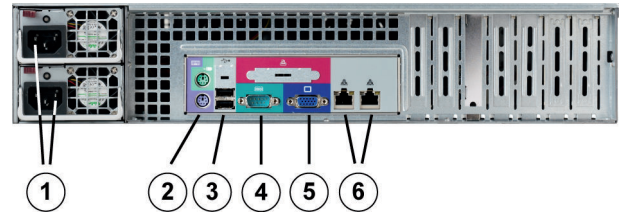|			
1	2x mains connection 100 - 240 VAC, 50 - 60 Hz	4	Serial interface COM1
2	Keyboard - Mouse **Note:** We recommend using PS2 mouse and keyboard.	5	Monitor (VGA) **Note:** Use only for configuration and maintenance purposes.
3	2x USB	6	2x Ethernet (RJ45)

Bosch Recording Station 19-inch 2U
Front view:

1	Power Failure	5	Power
2	Overheat/Fan Fail	6	Reset

3	NIC1/NIC2	7	Power on/off
4	HDD		

Rear view:

1	2x mains connection 100 - 240 VAC, 50 - 60 Hz	4	Serial interface COM1
2	Keyboard - Mouse **Note:** We recommend using PS2 mouse and keyboard.	5	Monitor (VGA) **Note:** Use only for configuration and maintenance purposes.
3	2x USB	6	2x Ethernet (RJ45)

Certifications and Approvals

Region	Certification	
USA	UL	FCC and UL Declaration of Conformity
Europe	CE	EC Declaration of Conformity
	CE	BRS Tower
	CE	BRS Rackmount

Technical Specifications

Recording resolutions	QCIF, CIF, 2CIF, 4CIF, HD 720p, HD 1080p Megapixel (arbitrary JPEG resolution up to 2048 x 1536 pixels)
Recording rates per channel	PAL: 0,5 - 25 IPS NTSC: 0,5 – 30 IPS
Supported video codecs / protocols	Bosch MPEG-4 Bosch H.264 Axis MPEG-4, JPEG/MJPEG via HTTP/TFTP

Supported Bosch MPEG-4/H.264 IP cameras	AutoDome Junior HD / HD IVA AutoDome 100/200/300/500 AutoDome Easy IP / IP II / IP II E Axis MPEG4 (no PTZ) Dinion IP (MPEG4) NBN-823V-P Dinion NBN-832V-P HD Dinion NBN-921-P Dinion NBx 4xx P / P IVA Dinion NBx 4xx P SD / P SD IVA Dinion NDx 4xx P SD / P SD IVA Extreme IP FlexiDome IP FlexiDome NDN-921-P FlexiDome NDx 4xx P / P IVA NBC 255-P / 265 P / 225 P NDC 265 P / 225-P / 225 P I NDC-255-P / 255 P I VG4 AutoDome (H.264 IP module) VG5 AutoDome HD / SD VOT 320V
Supported Bosch H.264 and MPEG-4 encoders (video servers)	VideoJet 10/1000 VideoJet X10 / X20 /X40 VideoJet X10 SN / X20 SN / X40 SN VIP X1 XF / X1 XF E VIP10 VIP 1600 / 1600 XFM4 VIPX1 / VIPX1A / VIPX2 / VIPX2A VJ8004 / VJ8004A VJ8008 / VJ8008A
Supported Bosch JPEG IP cameras	NWC-0700/0800 Megapixel IP camera NWC-0900 Day/Night Megapixel IP camera
Supported JPEG IP cameras from other manufacturers	IP cameras from Arecont Vision, Axis, Mobotix, Sony and other compatible cameras that support HTTP/TFTP and provide fixed path to JPEG image
Maximum recording rate	100 Mbit per second
Maximum number of connected cameras:	64
Maximum number of configured remote station at one receiver station	200 (can be configured, visible in devices list)
Number of simultaneously connected remote stations at one receiver station	Maximum: 32
Supported Languages	German, English, French, Portuguese, Spanish, Swedish
HTTP Browser Access (WAN)	Installed. A custom HTTP port is possible.
BRS WebServer	ActiveX required on browser
Operating system BRS Appliance	**Windows 7** (32-bit)

Device Compatibility / Integration features

Bosch Video Management System	Version 2.3.1 and 3.0 Requires 1 Gbit/s connections to central server and workstation; communication via TCP Port 135 plus 4 TCP ports and 4 UDP ports dynamically assigned in the range from 1025 to 65535
ATM integration	DTP3N via RS232 (only EMEA)
ATM/POS integration	Bosch ATM/POS bridge via TCP/IP
IP server integration	Any IP server using socket connections for communication
Alarm panel integration (intrusion, fire, access)	Integration via RS232: AZ1010, BZ500, BZ1012, BZ1060, FPA5000, G-Series Panels, NZ500, NZ1008, NZ1012, NZ1060, UEZ, UGM2020
Digital I/O modules (max. 8 per BRS)	Digital I/O Advantech ADAM-6017, ADAM-6018, ADAM-6022, ADAM-6024, ADAM-6050, ADAM-6050-W, ADAM-6051, ADAM-6051-W, ADAM-6052, ADAM-6055, ADAM-6060, ADAM-6060-W, ADAM-6066
Virtual inputs	External software can trigger events via virtual inputs over TCP/IP
Uninterruptible Power Supply (UPS)	• Loss of power can cause corruption of the Operating System or the stored video. To avoid loss of data and ensure trouble-free operation, we recommend installing an UPS for critical applications. • To connect and configure the UPS, observe the manufacturer's documentation delivered with the UPS. • The UPS is not contained in the product.

Electromagnetic Compatibility (EMC)

USA	FCC Part 15, Class A
EU	• EMC Directive 204/108/EC • Interference immunity: Conformance with EN 50130-4 For Tower: To comply with EN50130-4 voltage interruption an external UPS is required. The UPS is not contained in the product. The UPS should be dimensioned for at least 960 VA. • Interference emission: EN 55022, Class A • Mains power fluctuations: EN 61000-3-2 • Voltage fluctuations: EN 61000-3-3

Safety

USA	UL 60950-1, 2nd edition CAN/CSA-C22.2 No.60950-1-07, 2nd edition
EU	EN 60950-1:2006 + A11:2009

Warranty

Duration	3 years

Electrical

	BRS Tower	BRS 1 U rackmount	BRS 2U rackmount
120 VAC Input			
Actual output wattage from power supply	170.52 W	202.72 W	256.44 W
Efficiency of power supply	85%	88%	88%
Total system power consumption	200.61 W	230.37 W	291.41 W
Total BTU/h	684.70	786.24	994.59
Power Factor	.98	.95	.95
System AC input VA requirement	204.71 VA	242.49 VA	306.75 VA
Input current		2.02 A	
240 VAC Input			
Actual output wattage from power supply	170.52 W	256.44 W	256.44 W
Efficiency of power supply	86%	90%	90%
Total system power consumption	198.28 W	225.25 W	284.94 W
Total BTU/h	676.74	768.77	972.49
Power Factor	.92	.92	.92
System AC input VA requirement	206.54 VA	244.83 VA	309.71 VA
Input current		1.02 A	

Environmental

For all models	
Operating Temperature	+10 °C to +35 °C (+50 °F to +95 °F)
Non-operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Operating Relative Humidity	8 to 90% (non-condensing)
Non-Operating Relative Humidity	5 to 95% (non-condensing)

Mechanical

BRS Tower	
Form Factor	Mid-Tower (731D-300)
Power Supply	300 W high efficiency
USB Ports	2 USB 2.0 in rear
Network	Dual Intel® 82573 Gigabit LAN
Dimensions (H x W x D)	363 x 183 x 425 mm (14.25 x 7.25 x 16.75 in)
Weight	10.8 kg (23.8 lb)

BRS 19-inch 1 U (not available in APR)	
Form Factor	1 U Rack Mount (815TQ-R700)
Power Supply	700 W Gold Level Redundant
USB Ports	2 USB 2.0 in rear
Network	Dual Intel® 82573 Gigabit LAN
Dimensions (H x W x D)	44.5 x 437 x 648 mm (1.7 x 17.2 x 25.5 in)
Weight	16.3 kg (36 lb)

BRS 19-inch 2U	
Form Factor	2 U Rack Mount (825TQ-R720)
Power Supply	720 W Gold Level Redundant
USB Ports	2 USB 2.0 in rear
Network	Dual Intel® 82573 Gigabit LAN
Dimensions (H x W x D)	89 x 437 x 648 mm (3.5 x 17.2 x 25.5 in)
Weight	23.6 kg (52 lb)

Ordering Information

Bosch Recording Station Tower 1 TB
Recording Station Tower version with 1 TB storage capacity. Model not available in AMEC and APR.
Order number **BRS-TOW-1100A**

Bosch Recording Station Tower 4 TB
Recording Station Tower version with 4 TB storage capacity.
Order number **BRS-TOW-4100A**

Bosch Recording Station 1U 19-inch Rackmount 4 TB
Recording Station 19-inch rackmount with 4 TB storage capacity in a 1U high chassis. Model not available in APR.
Order number **BRS-RAC1-4100A**

Bosch Recording Station 2U 19-inch Rackmount 8 TB
Recording Station 19-inch rackmount with 8 TB storage capacity in a 2U high chassis.
Order number **BRS-RAC2-8100A**

Bosch Recording Station 2U 19-inch Rackmount 16 TB
Recording Station 19-inch rackmount with 16 TB
storage capacity in a 2U high chassis.
Order number **BRS-RAC2-8200A**

Software Options

Expansion License 4 IP cameras (e-license)
Recording Station Expansion License for 4 additional
IP Cameras
Order number **BRS-XCAM-04A**

Expansion license for 32 IP cameras (e-license)
Recording Station Expansion License for 32 IP
Cameras
Order number **BRS-XCAM-32A**

Feature License ATM POS bridge (e-license)
Recording Station Feature License for ATM/POS
Bridge Integration
Order number **BRS-FATM-A**

Feature License IP Server (e-license)
Recording Station Feature License for IP Server
Socket Connections
Order number **BRS-FIPS-A**

Feature License Security Panel (e-license)
Recording Station Feature License for Security Panel
Integration
Order number **BRS-FPAN-A**

BRS USB Dongle
Recording Station USB dongle. Provides a unique ID if
computer signature often changes.
Order number **BRS-DNGL-A**