DiBos/DiBos Micro

BOSCH

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Safety instructions

Important Safeguards

1. **Read, Follow, and Retain Instructions** – All safety and operating instructions should be read and followed before operating the unit. Retain instructions for future reference.
2. **Heed Warnings** – Adhere to all warnings on the unit and in the operating instructions.
3. **Attachments** – Attachments not recommended by the product manufacturer should not be used, as they may cause hazards.
4. **Installation Cautions** – Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only manufacturer–recommended accessories, or those sold with the product. Mount the unit per the manufacturer's instructions. Appliance and cart combination should be moved with care. Quick stops, excessive force, or uneven surfaces may cause the appliance and cart combination to overturn.
5. **Cleaning** – Unplug the unit from the outlet before cleaning. Follow any instructions provided with the unit. Generally, using a damp cloth for cleaning is sufficient. Do not use liquid cleaners or aerosol cleaners.
6. **Servicing** – Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
7. **Damage Requiring Service** – Unplug the unit from the main AC power source and refer servicing to qualified service personnel under the following conditions:
   • When the power supply cord or plug is damaged.
   • If liquid has been spilled or an object has fallen into the unit.
   • If the unit has been exposed to water and/or inclement weather (rain, snow, etc.).
   • If the unit does not operate normally, when following the operating instructions. Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may result in damage, and require extensive work by a qualified technician to restore the unit to normal operation.
   • If the unit has been dropped or the cabinet damaged.
   • If the unit exhibits a distinct change in performance, this indicates that service is needed.
8. **Replacement Parts** – When replacement parts are required, the service technician should use replacement parts specified by the manufacturer, or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electrical shock, or other hazards.
9. **Safety Check** – Upon completion of servicing or repairs to the unit, ask the service technician to perform safety checks to ensure proper operating condition
10. **Power Sources** – Operate the unit only from the type of power source indicated on the label. If unsure of the type of power supply to use, contact your dealer or local power company.
    • For units intended to operate from battery power, refer to the operating instructions.
    • For units intended to operate with External Power Supplies, use only the recommended approved power supplies.
    • For units intended to operate with a limited power source, this power source must comply with EN60950. Substitutions may damage the unit or cause fire or shock.
    • For units intended to operate at 24 VAC, normal input voltage is 24 VAC. Voltage applied to the unit's power input should not exceed 30 VAC. User–supplied wiring, from the 24 VAC supply to unit, must be in compliance with electrical codes (Class 2 power levels). Do not ground the 24 VAC supply at the terminals or at the unit's power supply terminals.

11. **Coax Grounding** – If an outside cable system is connected to the unit, ensure that the cable system is grounded. U.S.A. models only–Section 810 of the National Electrical Code, ANSI/ NFPA No.70, provides information regarding proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

12. **Grounding or Polarization** – This unit may be equipped with a polarized alternating current line plug (a plug with one blade wider than the other). This safety feature allows the plug to fit into the power outlet in only one way. If unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact an electrician to arrange replacement of the obsolete outlet. Do not defeat the safety purpose of the polarized plug. Alternately, this unit may be equipped with a 3–wire grounding plug (a plug with a third pin, for grounding). This safety feature allows the plug to fit into a grounding power outlet only. If unable to insert the plug into the outlet, contact an electrician to arrange replacement of the obsolete outlet. Do not defeat the safety purpose of the grounding plug.

13. **Lightning** – For added protection during a lightning storm, or when this unit is left unattended and unused for long periods of time, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power line surges.

14. **Restricted Access Locations** are required for the installation.

FCC & ICES Information

(U.S.A. and Canadian Models Only)This device complies with part 15 of the FCC Rules. Operation is subject to the following con- ditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules and ICES–003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and radiates radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his expense.

Intentional or unintentional modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such modifications could void the user's authority to operate the equipment.

If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: How to Identify and Resolve Radio–TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No.004–000–00345–4.

WARNING: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take adequate measures.

For Indoor Product

1. **Water and Moisture** – Do not use this unit near water – for example, in a wet basement, in an unprotected outdoor installation, or in any area classified as a wet location.
2. **Object and Liquid Entry** – Never push objects of any kind into this unit through openings, as they may touch dangerous voltage points or short out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the unit.
3. **Power Cord and Power Cord Protection** – For units intended to operate with **230VAC**, **50Hz**, the input and output power cord must comply with the latest versions of IEC Publication 227 or IEC Publication 245. Power supply cords should be routed so they are not likely to be walked on or pinched. Pay particular attention to location of cords and plugs, convenience receptacles, and the point of exit from the appliance.
4. **Overloading** – Do not overload outlets and extension cords; this can result in a risk of fire or electrical shock.

For Rack–Mount Product

1. **Ventilation** – This unit should not be placed in a built–in installation or rack, unless proper ventilation is provided, or the manufacturer's instructions have been adhered to. The equipment must not exceed its maximum operating temperature requirements.
2. **Mechanical Loading** – Mounting of the equipment in a rack shall be such that a hazardous condition is not achieved due to uneven mechanical loading.

WARNING: Electrostatic–sensitive device. Use proper CMOS/MOS-FET handling precautions to avoid electrostatic discharge.
NOTE: Grounded wrist straps must be worn and proper ESD safety precautions observed when handling the electrostatic–sensitive printed circuit boards.

CAUTION: Lithium Battery

Danger of explosion if battery is incorrect replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the battery manufacturer's instructions.

Cover Removal

WARNING: Removal of the cover should only be performed by qualified service personnel – not user serviceable. The unit should always be unplugged before removing the cover and remain unplugged while the is removed.

Safety Precautions

**CAUTION
RISK OF ELECTRIC SHOCK.
DO NOT OPEN!**

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates the presence of uninsulated "dangerous voltage" within the product's enclosure. This may constitute a risk of electric shock.

The user should consult the operating an maintenance (servicing) instructions in the literature accompanying the appliance.

Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

Power Disconnect. Units with or without ON–OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON–OFF switch is in the ON position. The power cord is the main power disconnect for all units.

Disposal:

Your Bosch product was developed and manufactured with high-quality material and components which can be recycled and reused.

This symbol means that electronic and electrical appliances which have reached the end of their working life must be disposed of separately from household waste.

In the EU, separate collecting systems are already in place for disused electronic and electrical products. Please dispose of these appliances at your local communal waste collection point or in the recycling center.

1 Introduction

1.1 System description

The video system is a digital monitoring system that allows video images to be stored locally and transmitted and evaluated at any place determined by you independently of distance and location. The image data delivered by the video system allows additional statements to be made on the magnitude of the danger and the developments before and after the event.

1.2 Unpacking

Check the packaging for visual damage. If something has been damaged while being transported, make the freight agency aware of this.

Carefully unpack the unit. This is an electronic device that must be carefully handled to avoid damage. Do not attempt to put the unit into operation if components are damaged. If parts are missing, inform your customer service representative or a Bosch Security Systems salesperson.

The shipping carton is the safest transport container for the unit. Store it and the other packaging material for future use. If the unit has to be sent back, use the original packaging.

1.3 Power supply

Ensure that the power supply at the chosen location is stable and lies within the values specified for the unit.

Being an electronic unit, the video system reacts in a sensitive fashion to sudden voltage peaks, drop-offs or dropouts.

To avoid damage to the electronic components, avoid loss of data and also ensure trouble-free operation, it is recommended that an uninterruptible power supply (UPS) is installed.

Depending on the stability of the mains network, the following uninterruptible power supplies are recommended:

- Mains networks with voltage peaks and voltage dropouts:
  Use of an offline UPS is sufficient (e. g.) Pulsar Ellipse 500.
- Mains networks with voltage peaks, voltage dropouts and **voltage drop-off:**
  Use of an online UPS is recommended.

For 1 video system of the grabber identification (grabber 1, grabber 2, etc.), a UPS with at least 300 VA is needed. If additional devices (e. g. monitors, sub-systems) are also to be protected, the capacity of the UPS must be raised accordingly.

1.4 Environmental conditions

When choosing an installation location for the unit, take the ambient temperature and humidity into account.

1.5   Recommended virus scanner/firewall

The video system operating system is Windows® XP embedded. Use of a virus scanner and a firewall is recommended.

Virus scanner

The following virus scanners have been released for use with the video system. They are listed according to their suitability.

1.   Trend Micro PC–cillin Internet Security 12.0

2.   Norton AntiVirus 2005

3.   McAfee VirusScan 9.0

Note:

•   Always use the newest virus update.

•   The real-time virus scanner must be activated. This is the only way to achieve sufficient protection against viruses. It does not affect the performance of the system.

•   All partitions on the hard disk that contain saved images must be excluded from the scanning process.

•   Scanning of the C disk, with the exception of the partitions containing images, should be done at scheduled times. When the C disk is scanned, the performance of the system is noticeably lowered and thus also the image retrieval and storage rates. **Individual images may be lost**.

Firewall

The integrated firewall embedded in the Windows® XP operating system is deactivated as standard. It can be activated as necessary.

For the virus scanners listed above, only Trend Micro PC–cillin Internet Security has a firewall integrated. The firewall must be additionally purchased for Norton AntiVirus 2005 and McAfee VirusScan 9.0.

The necessary ports to disable the firewall can be set in the configuration under "Security and network".

Note:
Always use the newest version of the firewall.

1.6   System overview/Technical data

1.6.1   DiBos

Electrical	
Camera inputs	
• 6 BNC sockets (DB 06 C1)	
• 12 BNC sockets (DB 12 C2)	
• 18 BNC sockets (DB 18 C3)	
• 24 BNC sockets (DB 24 C4)	
• 30 BNC sockets (DB 30 C5)	
1 Vss FBAS video signal, 75 Ohm	
Video loopthrough output	via loopthrough cable (termination manually switchable)
Recording resolution	PAL: 352 x 288 Pixel (CIF), 704 x 288 Pixel (2CIF) PAL: 352 x 288 Pixel (CIF), 704 x 288 Pixel (2CIF)
Network devices	
DB 06 C1 XXX R2	16 video/audio MPEG4 data streams from Bosch/VCS network or JPEG devices.
DB 12 C2 XXX R2	
DB 18 C3 XXX R2	
DB 24 C4 XXX R2	32 video/audio MPEG4 data streams from Bosch/VCS network or JPEG devices.
DB 30 C5 XXX R2	
Compression technique	MPEG4

DiBos device	IPS CIF (PAL)	IPS CIF (NTSC)	IPS 2CIF (PAL)	IPS 2CIF (NTSC)
DB 06 C1 xxx R2	75	90	50	60
DB 12 C2 xxx R2	150	180	100	120
DB 18 C3 xxx R2	225	270	150	180
DB 24 C4 xxx R2	300	360	200	240
DB 30 C5 xxx R2	375	450	250	300

Image size	settable from 1.5 kB to 20 kB (depending on the changes in the image)
IPS per channel (PAL)	0,5, 1, 2, 3, 4, 5, 6, 8, 12,5, 25
IPS per channel (NTSC)	0,5, 1, 2, 3, 5, 6, 7,5, 10, 15, 30
Audio inputs	2, 4, 6, 8, 10, Cinch sockets, line in signal, 16 kHz sampling rate
Audio outputs	1, line out signal, 1/8 inch mini-plug
Alarm inputs (NO/NC)	32
Malfunction relay output	1
Video monitor outputs	2, CVBS outputs for full image or sequences from connected analog cameras

Bilinx	For AutoDome control and configuration of Dinion cameras via coax cable
PTZ control	Bilinx (via coax cable, up to 30 AutoDome units), Biphase (up to 16 AutoDome units)
• RS 232	supported protocols: Bosch, Panasonic, Pelco (D-Protocol), JVC, SAE
• RS 232	via the console connection of any Allegiant matrix switch
Relay outputs	16, of which 1 is malfunction output:
Internal hard disk	250 GB, 500 GB, 750 GB, 1000 GB, 1600 GB (depending on model). 5 GB are needed for operating system and video system software.
Video output	1x VGA
Ethernet	10/100/1000 Base-T, bandwidth-limited
CPU	Intel P4 (at least 3 GHz)
RAM	512 MB
RS 232	2
USB 2.0	5
DVD-RW	installed
Power supply unit	100 / 240 VAC, 50 / 60 Hz (automatic switchover)
Power consumption (typical)	approx. 120 W
Operating system	Microsoft Windows XP® embedded
Extraction of video/audio data	DiBos or ASF format onto DVD-RW, USB device or network drive
Image printer	via USB (with Windows XP drivers)
Mechanical facilities	
Dimensions (H x B x T)	17.5 cm x 48.0 cm x 54.5 cm (7 x 19 x 21.5 inch)
Weight	16 – 20.4 kg (25 – 55 lb), model-dependent

Environmental conditions

Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	10°C to 60°C (14°F to 140°F)
Relative humidity in operation	15% to 80%, no condensation
Relative humidity when stored	8% to 80%, no condensation

Electromagnetic compatibility (EMC)

• USA	FCC Part 15, Class A
• EU	EMC Directive 89/336/EEC Interference immunity: Conformance with EN 50130-4 requires an external UPS. The product is tested according to EN50130-4, with the exception of voltage interruption to EN50130-4:1995 Chapter 3/8/04. To comply with EN50130-4, an external UPS is required. The UPS (Pulsar ellipse 500) is not contained in the product and must be ordered separately. Interference emission: EN 55022, Class B Mains power fluctuations: EN 61000-3-2 Voltage fluctuations: EN 61000-3-3

Safety

• USA	UL60950 3rd Issue (2000) CAN/CSA 22.2 No.60950-00, 3rd Issue (2000)
• EU	EN60950: 2000
Warranty	3 years
Released antivirus software	Norton Anti Virus McAfee Virus Scan Trend Micro

Other

Hardware and software options

DiBos software receiver for alarm image data streams via network and/or ISDN and/or PSTN.

DB SR 00 2	no device can be connected
DB SR 16 2	16 network devices can be connected
DB SR 32 2	32 network devices can be connected

Requirements for computer with DiBos recipient software/IP recorder:

Operating system	Microsoft Windows XP® Professional
CPU	2 GHz or more, Pentium® 4
RAM	512 MB
VGA card	1024 x 768, 32-bit color
USB connection	for dongle

Country variants

All versions come complete with handbook, keyboard and mouse.

DB EK 012 EN	English version

DB EK 012 DE	USEnglish version
DB EK 012 FR	French version
DB EK 012 ES	Spanish version
DB EK 012 IT	Italian version
DB EK 012 PT	Portuguese version
DB EK 012 NL	USEnglish version
External hard disk expansion	
DB EK 02 1	SCSI adapter for external hard disks, supports various Bosch hard disks up to 16 TB
Communications expansion	
DB EK 031	PCI modem card (not for DB 30 C5 160)
DB EK 121	PCI ISDN card (not for DB 30 C5 160)
Interface expansion for Bosch security systems	
DB SE 03 1	Connection via RS 232 to 9000 Series (Radionics), UGM 2020, UEZ 2000/1000, BZ 500. NZ/BZ 1060, NZ/BZ 1012, NZ 1008
Interface expansion for ATMs (KBA)	
DB SE 01 3	Up to 4 ATMs
DB SE 01 4	Up to 2 ATMs
Graphics adapter	
DB EK 08 1	PCI graphics adapter for dual SVGA outputs, DVI-I and FBAS monitor output, installation only at BOSCH
Upgrade kit for cameras	
DB EK 10 1	Expansion card for 6 cameras, (not for DB 30 C5 xxx), installation only at BOSCH
Web browser	
Web browser	Microsoft Internet Explorer 6 or higher, on Windows 2000 or Windows XP variants

Ordering information	
Models and description	
DB 06 C1 075 R2	6-channel DiBos with 750 GB memory capacity, DVD-RW, 16 IP devices
DB 12 C2 075 R2	12-channel DiBos with 750 GB memory capacity, DVD-RW, 16 IP devices
DB 18 C3 025 R2	18-channel DiBos with 250 GB memory capacity, DVD-RW, 16 IP devices
DB 18 C3 050 R2	18-channel DiBos with 500 GB memory capacity, DVD-RW, 16 IP devices
DB 18 C3 100 R2	18-channel DiBos with 1000 GB memory capacity, DVD-RW, 16 IP devices
DB 18 C3 160 R2	18-channel DiBos with 1600 GB memory capacity, DVD-RW, 16 IP devices
DB 24 C4 025 R2	24 channel DiBos with 250 GB memory capacity, DVD-RW, 32-IP devices
DB 24 C4 050 R2	24 -channel DiBos with 500 GB memory capacity, DVD-RW, 32 IP devices
DB 24 C4 100 R2	24-channel DiBos with 1000 GB memory capacity, DVD-RW, 32 IP devices
DB 24 C4 160 R2	24-channel DiBos with 1600 GB memory capacity, DVD-RW, 32 IP devices
DB 30 C5 025 R2	30-channel DiBos with 250 GB memory capacity, DVD-RW, 32 IP devices
DB 30 C5 050 R2	30-channel DiBos with 500 GB memory capacity, DVD-RW, 32 IP devices
DB 30 C5 100 R2	30 -channel DiBos with 1000 GB memory capacity, DVD-RW, 32 IP devices
DB 30 C5 160 R2	30-channel DiBos with 1600 GB memory capacity, DVD-RW, 32 IP devices

1.6.2   DiBos Micro

Electrical				
Camera inputs				
Connecting cable with 6 (DB 06) or 12 (DB 12) BNC connectors				
1 Vss FBAS video signal, 75 Ohm				
Recording resolution	PAL: 352 x 288 Pixel (CIF), 704 x 288 Pixel (2CIF) PAL: 352 x 288 Pixel (CIF), 704 x 288 Pixel (2CIF)			
Network devices				
up to 8 video/audio MPEG4 data streams from Bosch/VCS network or JPEG devices.				
Compression technique	MPEG4			
DiBos device	IPS CIF (PAL)	IPS CIF (NTSC)	IPS 2CIF (PAL)	IPS 2CIF (NTSC)
DB 06 C1 xxx D2	75	90	50	60
DB 12 C2 xxx D2	150	180	100	120
Image size	settable from 1.5 kB to 20 kB (depending on the changes in the image)			
IPS per channel (PAL)	0,5, 1, 2, 3, 4, 5, 6, 8, 12,5, 25			
IPS per channel (NTSC)	0,5, 1, 2, 3, 5, 6, 7,5, 10, 15, 30			
Audio inputs	2 or 4 Cinch sockets, line in signal, 16 kHz sampling rate			
Audio outputs	1, line out signal, 1/8 inch mini-plug			
Alarm inputs (NO/NC)	12			
Malfunction relay output	1			
Video monitor outputs	2, CVBS outputs for full image or sequences from connected analog cameras			
Bilinx	For AutoDome control and configuration of Dinion cameras via coax cable			
PTZ control	Bilinx (via coax cable, up to 12 AutoDome units), Biphase (up to 12 AutoDome units)			
• RS 232	supported protocols: Bosch, Panasonic, Pelco (D-Protocol), JVC, SAE			
• RS 232	via the console connection of any Allegiant matrix switch			
Relay outputs	12, of which 1 is malfunction output:			
Internal hard disk	120 GB, 250 GB, 400 GB (depending on model). 5 GB are needed for operating system and video system software.			
Video output	1x VGA			
Ethernet	10/100/1000 Base-T, bandwidth-limited			
CPU	Intel Celeron® (min. 2.6 GHz)			
RAM	512 MB			
RS 232	1			

USB 2.0	6
CD-RW or DVD-RW	installed
Power supply unit	100 / 240 VAC, 50 / 60 Hz (automatic switchover)
Power consumption (typical)	approx. 120 W
Operating system	Microsoft Windows XP® embedded
Extraction of video/audio data	DiBos or ASF format onto DVD-RW, USB device or network drive
Image printer	via USB (with Windows XP drivers)
Mechanical facilities	
Dimensions (H x B x T)	11.5 cm x 48.0 cm x 43cm (4.5 x 19 x 16.9inch)
Weight	approx. 11.3 kg (approx. 25 lb), dependent on model
Environmental conditions	
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	10°C to 60°C (14°F to 140°F)
Relative humidity in operation	15% to 80%, no condensation
Relative humidity when stored	8% to 80%, no condensation
Electromagnetic compatibility (EMC)	
• USA	FCC Part 15, Class B
• EU	EMC Directive 89/336/EEC Interference immunity: Conformance with EN 50130-4 requires an external UPS. The product is tested according to EN50130-4, with the exception of voltage interruption to EN50130-4:1995 Chapter 3/8/04. To comply with EN50130-4, an external UPS is required. The UPS (Pulsar ellipse 500) is not contained in the product and must be ordered separately. Interference emission: EN 55022, Class B Mains power fluctuations: EN 61000-3-2 Voltage fluctuations: EN 61000-3-3
Safety	
• USA	UL60950 3rd Issue (2000) CAN/CSA 22.2 No.60950-00, 3rd Issue (2000)
• EU	EN60950: 2000
Warranty	3 years
Released antivirus software	Norton Anti Virus McAfee Virus Scan Trend Micro

Other	
Hardware and software options	
DiBos software receiver for alarm image data streams via network and/or ISDN and/or PSTN.	
DB SR 00 2	no device can be connected
DB SR 16 2	16 network devices can be connected
DB SR 32 2	32 network devices can be connected
Requirements for computer with DiBos recipient software/IP recorder:	
Operating system	Microsoft Windows XP® Professional
CPU	2 GHz or more, Pentium® 4
RAM	512 MB
VGA card	1024 x 768, 32-bit color
USB connection	for dongle
Country variants	
All versions come complete with handbook, keyboard and mouse.	
DB EK 012 EN	English version
DB EK 012 DE	USEnglish version
DB EK 012 FR	French version
DB EK 012 ES	Spanish version
DB EK 012 IT	Italian version
DB EK 012 PT	Portuguese version
DB EK 012 NL	USEnglish version
External hard disk expansion	
DB EK 02 1	SCSI adapter for external hard disks, supports various Bosch hard disks up to 16 TB
Communications expansion	
DB EK 031	PCI modem card (only for DB 06)
Interface expansion for Bosch security systems	
DB SE 03 1	Connection via RS 232 to 9000 Series (Radionics), UGM 2020, UEZ 2000/1000, BZ 500. NZ/BZ 1060, NZ/BZ 1012, NZ 1008
Interface expansion for ATMs (KBA)	
DB SE 01 3	Up to 4 ATMs
DB SE 01 4	Up to 2 ATMs
Upgrade kit for cameras	
DB EK 10 1	Expansion card for 6 cameras, (only for DB 06), installation only at BOSCH
Web browser	
Web browser	Microsoft Internet Explorer 6 or higher, on Windows 2000 or Windows XP variants

Ordering information

Models and description

DB 06 C1 012 DL2	6-channel DiBos Micro with 120 GB memory capacity, CD-RW, no IP devices
DB 06 C1 012 D2	6-channel DiBos Micro with 120 GB memory capacity, CD-RW, 8 IP devices
DB 06 C1 025 D2	6-channel DiBos Micro with 250 GB memory capacity, DVD-RW, 8 IP devices
DB 06 C1 040 D2	6-channel DiBos Micro with 400 GB memory capacity, DVD-RW, 8 IP devices
DB 12 C2 025 D2	12-channel DiBos Micro with 250 GB memory capacity, DVD-RW, 8 IP devices
DB 12 C2 040 D2	12-channel DiBos Micro with 400 GB memory capacity, DVD-RW, 8 IP devices

2 Device connections

The video system is available as DiBos and as DiBos Micro.

2.1 DiBos

DiBos front view
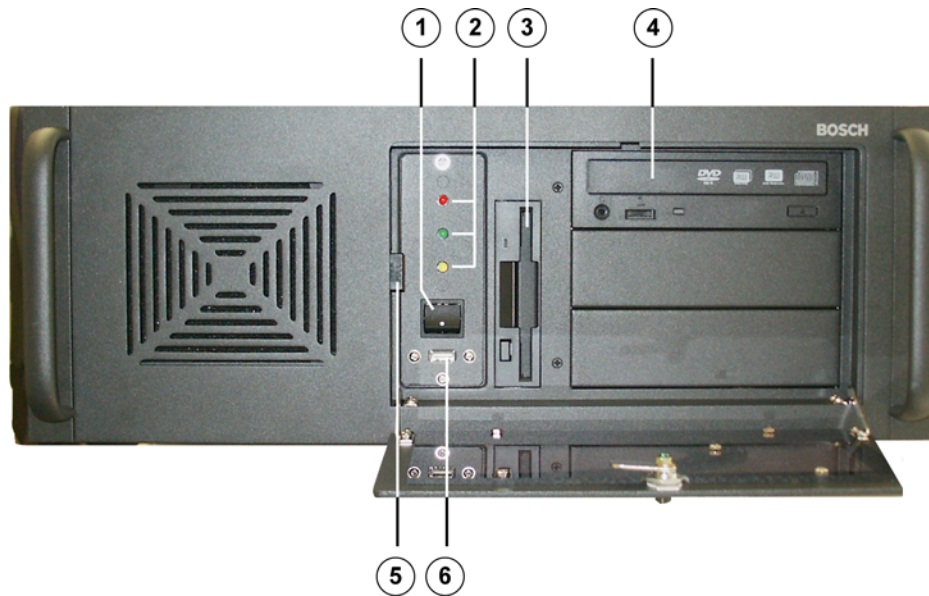
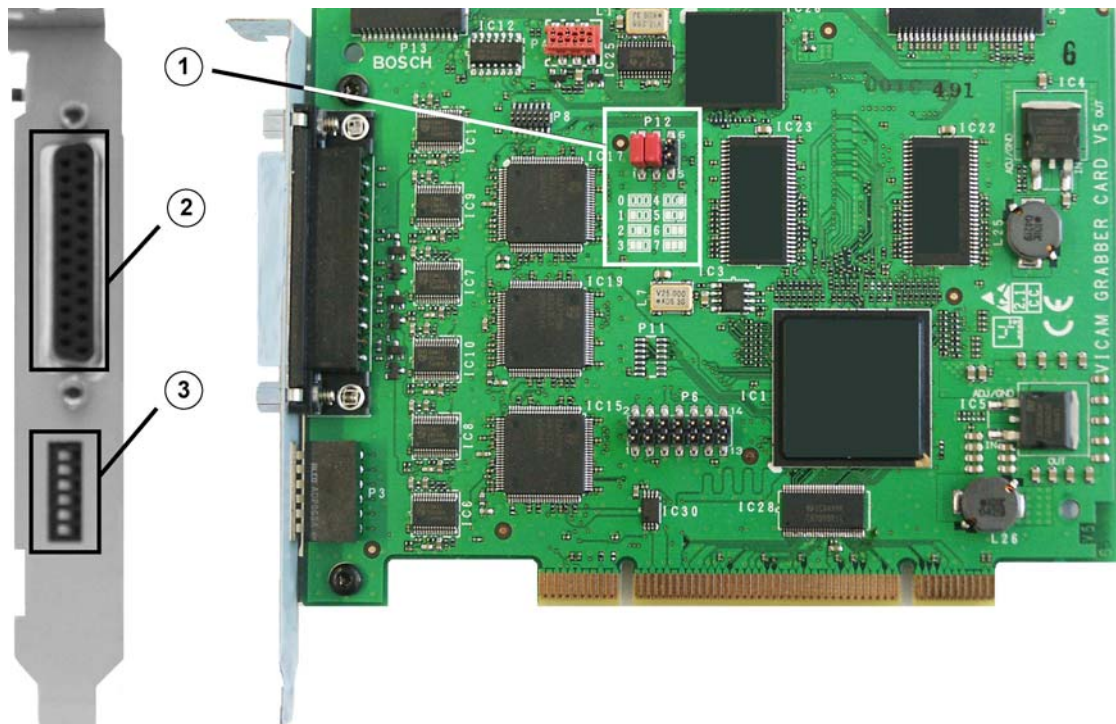| 1	On/Off switch	4	DVD-RW
2	Control lamps Yellow = unused Red = Hard disk access Green = system is switched on	5	Dust filter (must be cleaned regularly)
3	Diskette drive	6	USB 2.0

DiBos rear view
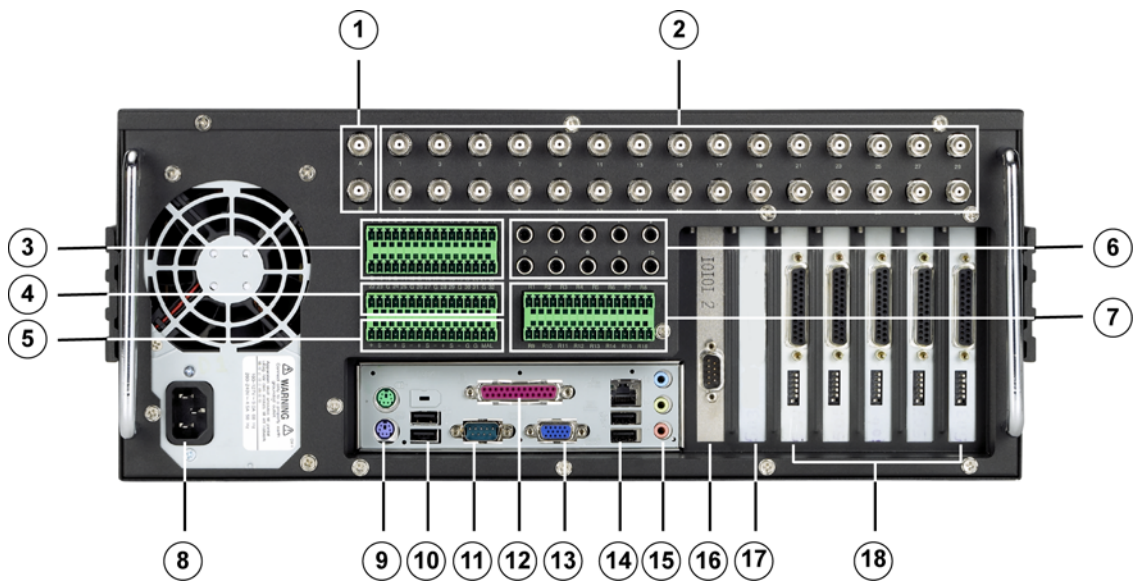
1	Video monitor A/Video monitor B	10	2x USB 2.0
2	Video inputs 1 - 30	11	Serial port COM1
3	Alarm inputs 1 - 21	12	Parallel interface **Note:** Dongle must be plugged in
4	Alarm inputs 22- 32	13	VGA monitor
5	Biphase 1 - 4, malfunction outputs 1	14	Ethernet (RJ45) - 2x USB 2.0
6	Audio inputs 1 - 10	15	Line In (blue) Speaker Out (green) Microphone In (red), Mono
7	Relay outputs 1 - 16	16	Second serial port
8	Mains connection 100 / 240 VAC, 50 / 60 Hz (automatic switchover)	17	Free for optional PCI plug-in cards
9	Mouse (green) - Keyboard (purple)	18	Grabbers 1 - 5

Grabber card (for DiBos)

Looped through inputs may not be terminated.

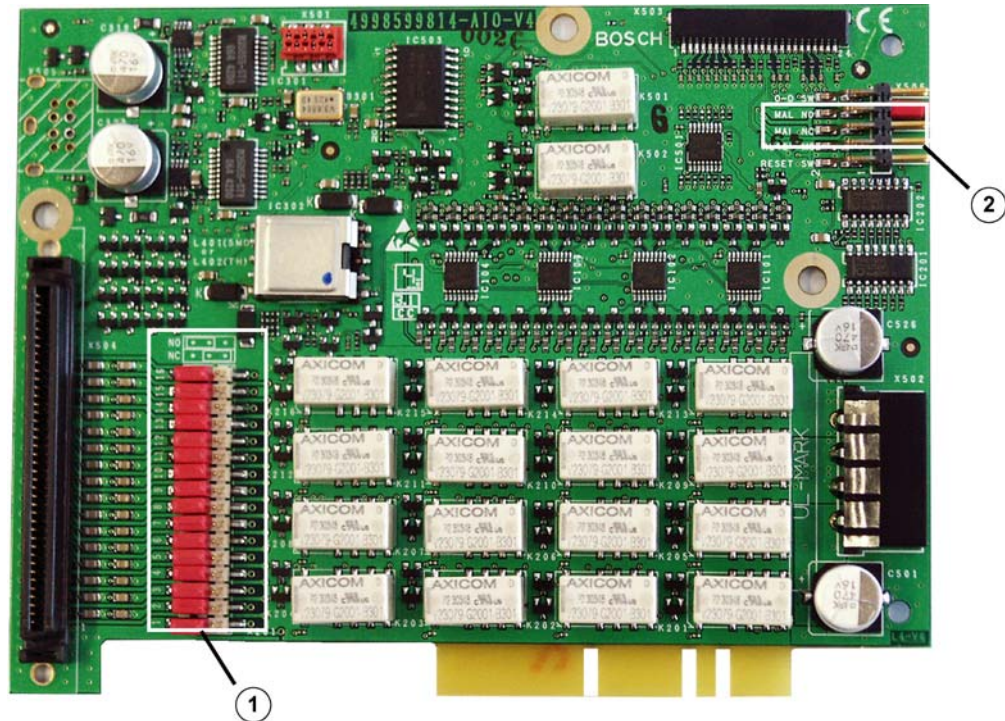When a grabber card is retrofitted, the grabber identification (grabber 1, grabber 2, etc.) must be set:

1		Grabber identification: The settings for grabber cards 1 - 5 is printed on the PCB. 0 = Grabber 1 1 = Grabber 2 2 = Grabber 3 3 = Grabber 4 4 = Grabber 5
2		loopthrough cable plug
3		Termination when loopthrough cable is used: Switch position left: Input is terminated (delivery condition) Switch position right: Open, not terminated Topmost switch: For camera input 1 etc.

I/O card (for DiBos)

The following can be set for the I/O card:

- the relay outputs (NO = normally open, NC = normally closed)
- the malfunction outputs (malfunction, NO = normally open, NC = normally closed)

1		Relay outputs: The setting is printed on the PCB. Bridge position left: (position when delivered) open (NO = normally open) Bridge position right: closed (NC = normally closed)
2		Malfunction output: The setting is printed on the PCB. Bridge position up: open (MAL NO = malfunction normally open) Bridge position down: closed (MAL NC = malfunction normally closed)

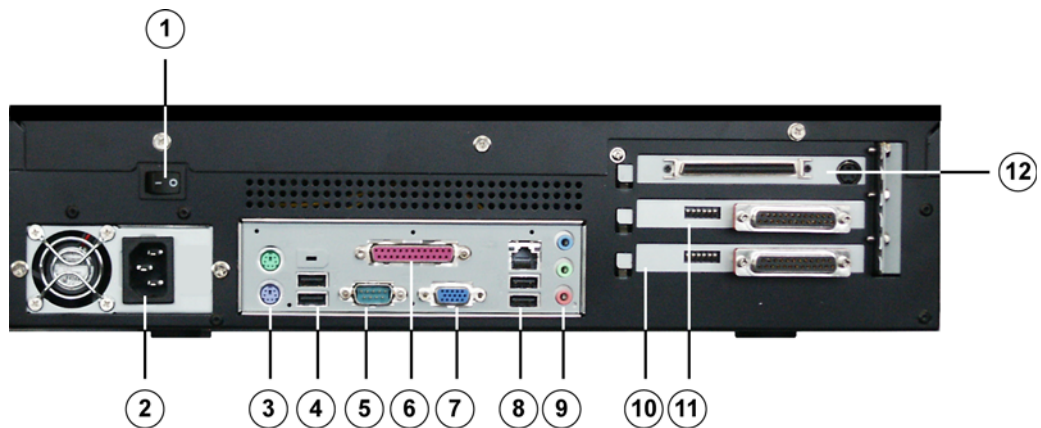**Note:** The I/O card must be removed to change the bridge settings.

2.2   DiBos Micro

DiBos Micro front view
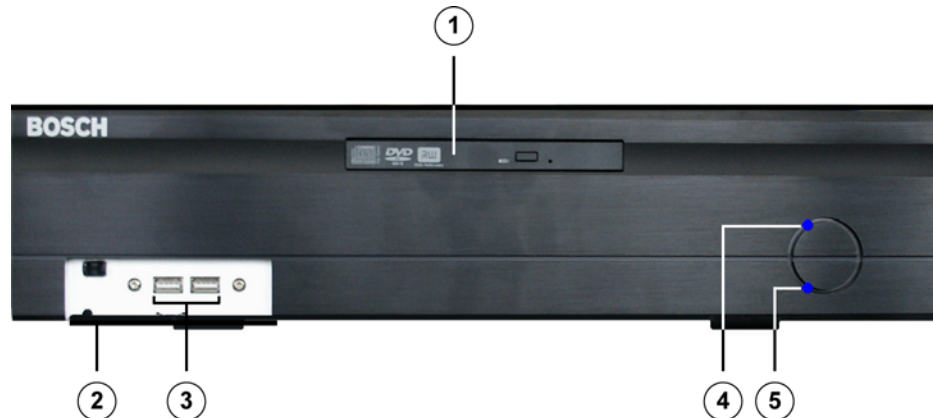
1	DVD/DVD-RW	4	Control lamp: System is switched on
2	Front covering Opened with one push on the cover.	5	Control lamp: Hard disk access
3	2x USB 2.0		

DiBos Micro rear view

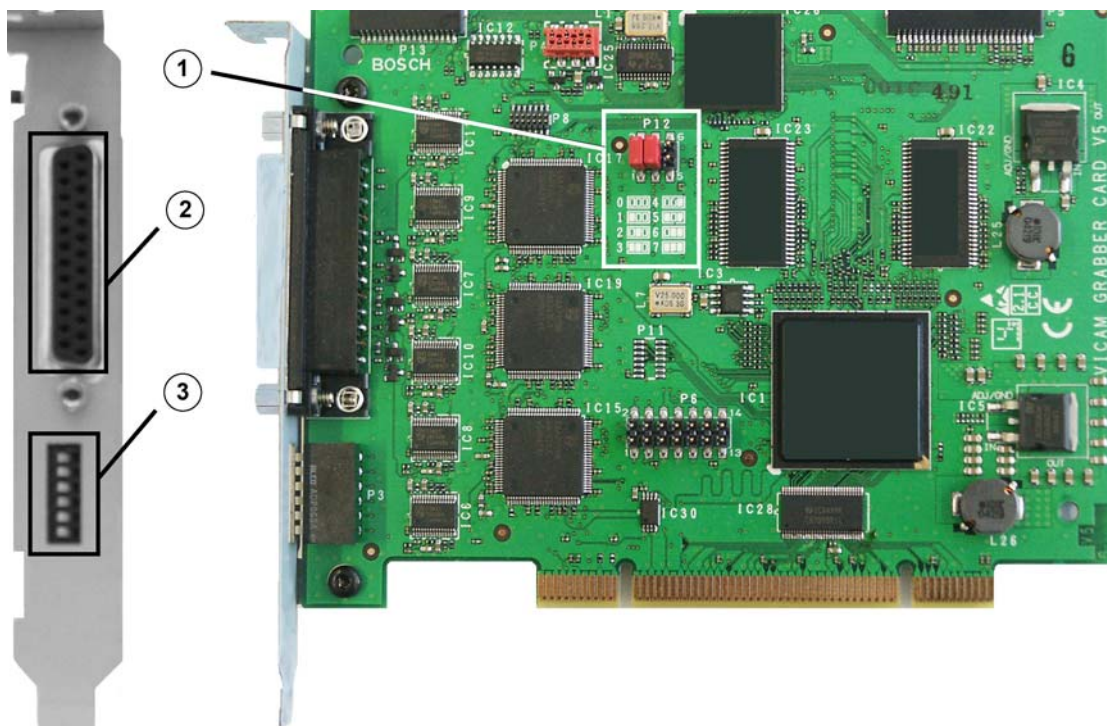| 1	On/Off switch	7	VGA monitor
2	Mains connection 100 / 240 VAC, 50 / 60 Hz (automatic switchover)	8	Ethernet (RJ45) - 2x USB 2.0
3	Mouse (green) Keyboard (purple)	9	Line In (blue) Speaker Out (green) Microphone In (red), Mono
4	2x USB 2.0	19	Grabber 1 (camera 1 - 6)
5	Serial port COM1	11	Grabber 2 (camera 7 - 12)
6	Parallel interface **Note:** Dongle must be plugged in	12	I/O card with plug for connecting the alarm inputs and relay outputs and sokket for video monitor A and video monitor B

Grabber card (for DiBos Micro)

Looped through inputs may not be terminated.

When a grabber card is retrofitted, the grabber identification (grabber 1, grabber 2, etc.) must be set:
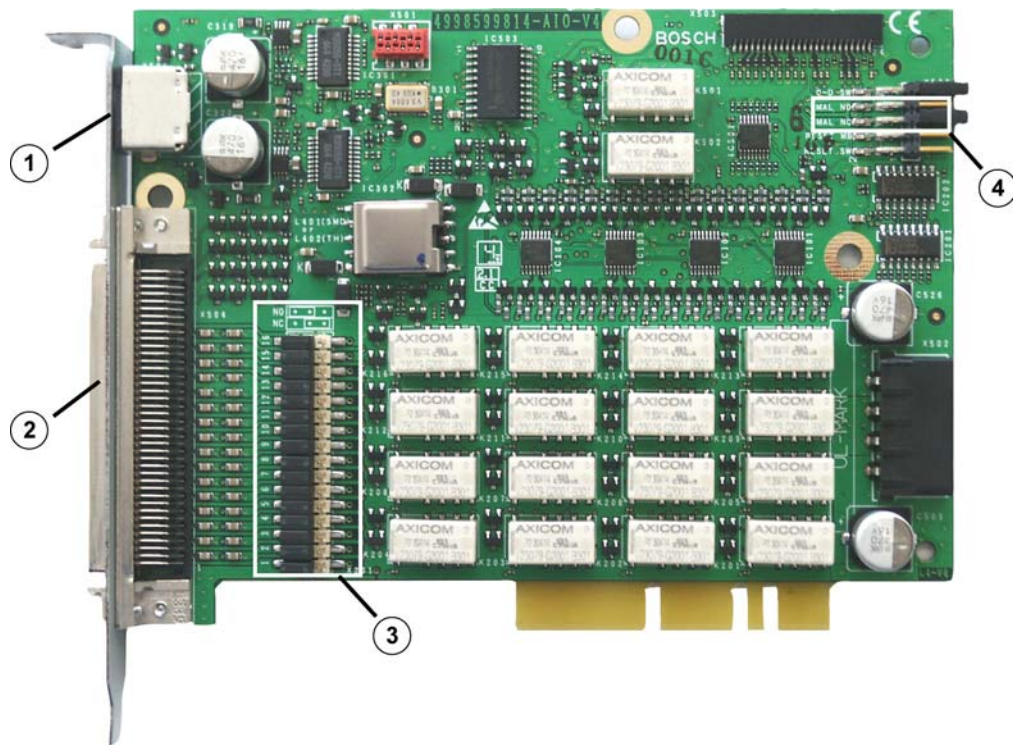

1		Grabber identification: The settings for grabber card 1 and grabber card 2 are printed on the PCB. 0 = Grabber 1 1 = Grabber 2
2		Plug for connecting cable with 6 video and 2 audio inputs (the cables are numbered). BNC cable with Number 1 (brown) = Video-Input 1 BNC cable with Number 2 (yellow) = Video-Input 2 BNC cable with Number 3 (green) = Video-Input 3 BNC cable with Number 4 (black) = Video-Input 4 BNC cable with Number 5 (white) = Video-Input 5 BNC cable with Number 6 (blue) = Video-Input 6 Audio cable with Number 1 (grey) = Audio-Input 1 Audio cable with Number 2 (red) = Audio-Input 2
3		Scheduling of video inputs: Switch position left: Input terminated (delivery condition) Switch position right: Open, not terminated Topmost switch: For camera input 1 etc.

I/O card (for DiBos Micro)

The following can be set for the I/O card:

- the relay outputs (NO = normally open, NC = normally closed)
- the malfunction outputs (malfunction, NO = normally open, NC = normally closed)

1	Cable for monitor output A and monitor output B (the cables are numbered). Cable with Number 1 = Monitor A Cable with Number 2 = Monitor B
2	Connecting cable for 12 alarm inputs, 12 relay outputs, 4 biphase and 1 malfunction output (for allocation see table below)
3	Relay outputs: The setting is printed on the PCB. Bridge position left: (position when delivered) open (NO = normally open) Bridge position right: closed (NC = normally closed)
4	Malfunction output: The setting is printed on the PCB. Bridge position up: open (MAL NO = malfunction normally open) Bridge position down: closed (MAL NC = malfunction normally closed)

Note: The I/O card must be removed to change the bridge settings.

The following table shows the plug pin assignments of the connecting cable:

Connector	Colour	Name	Connector	Colour	Name
1	White/tan	Relay 1	41	Tan/white	Alarm input 1
2	White/brown	Relay 1	42	Brown/white	Alarm input 2
3	White/pink	Relay 2	43	Pink/white	Alarm input 3
4	White/orange	Relay 2	44	Orange/white	Alarm input 4
5	White/yellow	Relay 3	45	Yellow/white	Alarm input 5
6	White/green	Relay 3	46	Green/white	Alarm input 6
7	White/blue	Relay 4	47	Blue/white	Alarm input 7
8	White/violet	Relay 4	48	Violet/white	Alarm input 8
9	White/grey	Ground	49	Grey/white	Ground
10	Tan/brown	Relay 5	50	Brown/tan	Alarm input 9
11	Tan/pink	Relay 5	51	Pink/tan	Alarm input 10
12	Tan/orange	Relay 6	52	Orange/tan	Alarm input 11
13	Tan/yellow	Relay 6	53	Yellow/tan	Alarm input 12
14	Tan/green	Relay 7	54	Unused	
15	Green/tan	Relay 7	55	Unused	
16	Tan/blue	Relay 8	56	Unused	
17	Blue/tan	Relay 8	57	Unused	
18	Tan/violet	Relay 9	58	Unused	
19	Violet/tan	Relay 9	59	Unused	
20	Tan/grey	Relay 10	60	Unused	
21	Grey/tan	Relay 10	61	Unused	
22	Brown/pink	Relay 11	62	Unused	
23	Pink/brown	Relay 11	63	Unused	
24	Brown/orange	Relay 12	64	Unused	
25	Orange/brown	Relay 12	65	Unused	
26	Brown/yellow	Ground	66	Yellow/brown	Ground
27	Unused		67	Unused	
28	Unused		68	Unused	
29	Unused		69	Unused	
30	Unused		70	Unused	
31	Unused		71	Unused	
32	Unused		72	Unused	
33	Unused		73	Unused	
34	Unused		74	Unused	
35	Brown/green	Malfunction output	75	Green/brown	Malfunction output
36	Brown/blue	Biphase 1-	76	Blue/brown	Biphase 1+
37	Brown/violet	Biphase 2-	77	Violet/brown	Biphase 2+
38	Brown/grey	Ground	78	Grey/brown	Ground
39	Pink/orange	Biphase 3-	79	Orange/pink	Biphase 3+
40	Unused		80	Unused	

3   Quick installation

This chapter describes how to put the unit into operation quickly.

Main connections

1. Connect the cameras to the video inputs.
2. Make sure that the dongle is plugged into the parallel interface.
3. Connect the VGA monitor.
4. Connect the mouse and keyboard.

Optional connections

The optional connections can be added after the system is configured.

1. Connect monitor A and monitor B to sockets A and B.
2. Connect up to 32 alarm inputs.(for DiBos Micro: 12).
3. Connect up to 16 relay outputs. (for DiBos Micro: 12).
4. Connect to your network via the Ethernet port.
5. Connect customer-operated ATMs, foyer card readers, radio clock and alarm panels.

Switch on

1. Switch on all connected devices.
2. Plug the mains power cable into the video system.
3. Switch on the video system (On/Off switch on the front). The computer goes through its boot routine.

First-time use

After finishing the start procedure, 2 images/second are stored for every camera connected.

The user interface is automatically displayed. On it, the images from all cameras connected are displayed in the multi-image view. If the image for a camera is not displayed, check the camera connections.

You are not yet logged on as a user. You can, however, start the Configuration wizard.

Quick configuration with the help of the Configuration wizard

1. Start the Configuration wizard in the menu "System → Configuration wizard".
2. Make a quick configuration in the Configuration wizard or load an existing configuration (see Page 28 "Quick configuration") into the system.

4   Quick configuration

You can create a basic system configuration with the help of the configuration wizard in just a few mouse clicks. The system automatically recognizes the video hardware that is connected (cameras, grabbers).

The Configuration wizard consists of five dialogs. Each dialog can be handled separately from other dialogs and the configuration completed. Repeated calling is possible, for example to add new cameras. This does not overwrite a configuration that already exists.

If a more complex configuration is necessary, this is carried out with the help of the standard configuration. A switch to the configuration wizard from the standard configuration is possible at any time without loss of data.
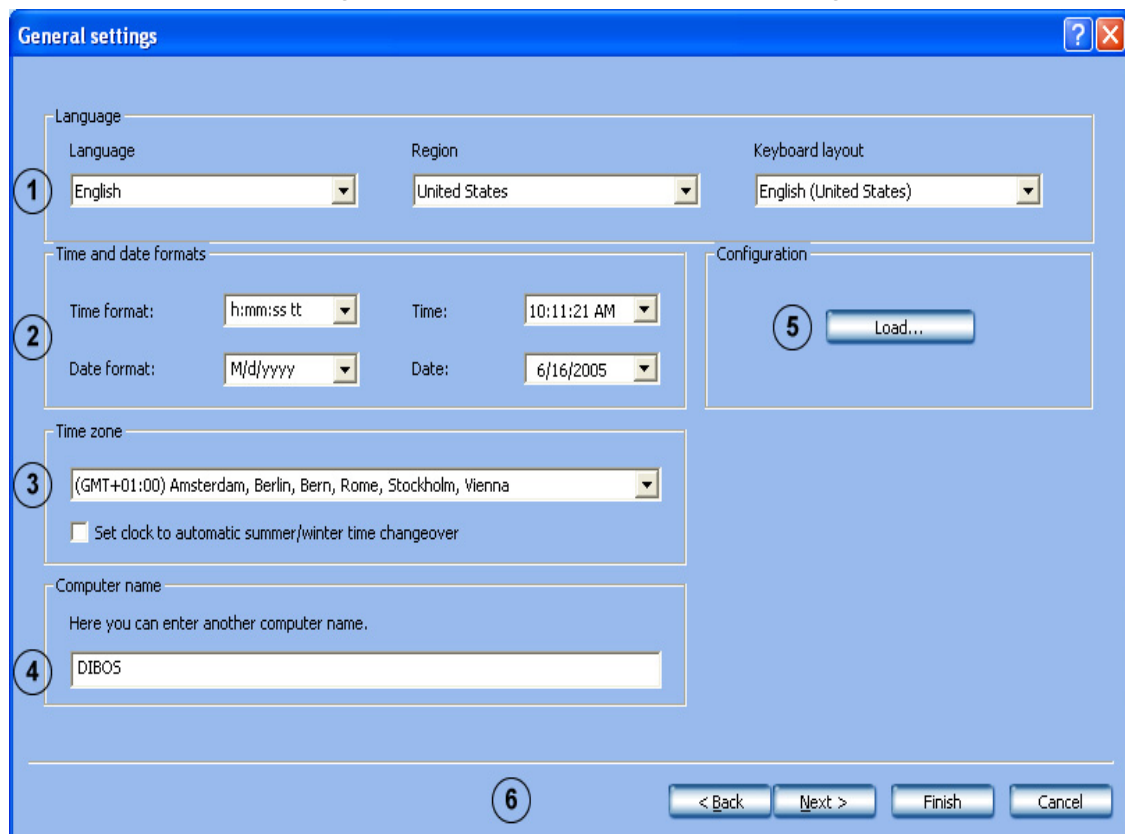
Note: For security reasons, it is advisable to save the configuration on an external data medium.

General settings

Menu "System" ➔ "Configuration wizard"

or

Menu "System" ➔ "Configuration" ➔ "Administration and dongle"

In this dialog box, edit the general settings for the system, such as language, time and date format, time zone and computer name.

1	Language	It is possible to set the language of the operating system and the video system software.
		Note: Representation of the time and date display is determined by the language and region selected. If the language is changed, the system is automatically shut down and rebooted when the wizard finishes.

1	Language	Lists the available languages for the operating system and the video system software.
	Region	Lists the available regions for the language selected.
	Keyboard layout	Lists the available keyboard layouts.
2	Time and date formats	Specify the time and date format here.
	Time format:	Enter the type of time display. h = hours; m = month; s = seconds; t = morning/afternoon (e. g. AM/PM) h = 12 hours; H = 24 hours hh, mm, ss = representation with leading zero (representation with 2 digits) h, m, s = representation without leading zero
	Date format:	Enter the type of date display. d = day; M = month; y = year dd, MM = representation with leading zero yy = for example 05; yyyy = for example 2005
	Time:	Current time.
	Date:	Current date.
3	Time zone	Lists the available time zones
	Set clock to automatic summer/winter time changeover	Activate this function when the system time should change automatically to summer and winter time.
4	Computer name	Enter the name. This name identifies the video system in the network. **Note:** If the name is changed, the system automatically shuts down when the wizard finishes. The system is subsequently rebooted automatically.
5	Configuration	Loads a previously created configuration, for example from a USB memory stick.
	Load	Click on the button to load a configuration.
6	Finish	Saves the settings and finishes the wizard.
	Next	Click on "Next" to continue.

Create a user

Menu "System" ➡ "Configuration wizard" ➡ "Next"

On first installation, 3 authorization levels are automatically created. These can not be edited or deleted.

1	Administrator:	Possesses all rights concerning operation and configuration of the system.
2	Extended user:	Possesses all rights concerning operation of the system. He possesses no rights for configuration of the system. An exception is the right to create a "normal user".
3	Normal user:	Possesses all rights concerning operation of the system. He possesses no rights for configuration.
4	Finish	Saves the settings and finishes the wizard.
	Next	Click on "Next" to continue.

Proceed as follows to create a new user:

1. Create a new user by entering "Name" and "Password" in the corresponding authorization.
2. Enter the same password again under "Repeat password".
3. Click on "Next" to call the next page of the wizard or on "Finish" to save the entries and exit the wizard.

Note:
As standard, no password is assigned for the authorization levels.

Set up network

Menu "System" ➤ "Configuration wizard" ➤ "Next"
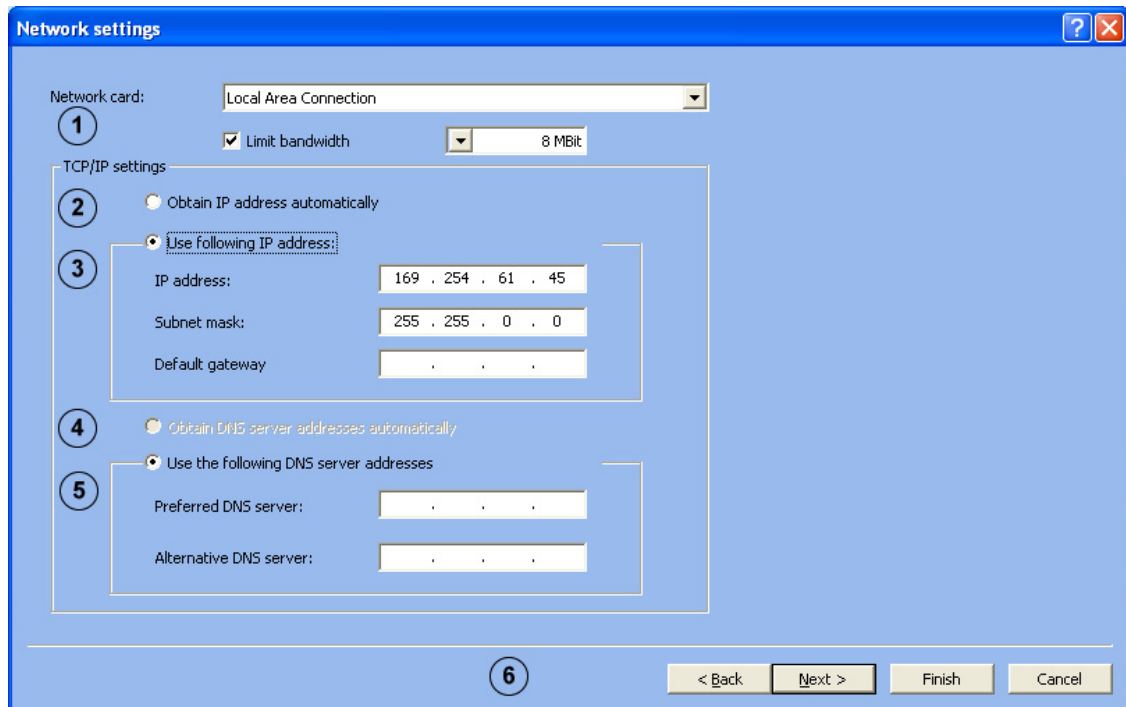
If integrated into a customer network, the following settings must be made:

| **1**	Network card	Select the network card.
	Limit bandwidth	Limits data transmission bandwidth to a value that the system does not exceed.
2	TCP/IP settings	Specify here whether the network connection should use a fixed IP address or whether the IP address should be assigned automatically.
	Obtain IP address automatically	The IP address of this network connection has been dynamically assigned by a DHCP server.
		Note: The existing network must support this function.
3	Use following IP address:	A fixed IP address will be assigned to the network connection. In this case, the IP address and subnet mask must subsequently be entered.
		Note: You get these from your system administrator or Internet service provider.
	IP address:	Enter the IP address.
	Subnet mask:	Enter the number of the subnet mask. The IP address and subnet mask determine which network your computer will use.

3	Default gateway	Enter the address of the default gateway you want to use. This is the address of a local gateway in the same network as the computer. It is used to forward data to a target outside the local network.
		Note: A gateway connects separate networks together. For example, the local network (LAN) needs a gateway to connect it to the Internet or WAN. Ask your system administrator for the number.
4	Obtain DNS server addresses automatically	The network addresses for DNS servers are assigned dynamically by the network.
5	Use the following DNS server addresses	The network addresses for DNS servers have fixed assignments.
	Preferred DNS server:	IP address of preferred DNS server. This server is used first.
	Alternative DNS server:	IP address of a replacement server that is to be used when the first server is unreachable.
6	Finish	Saves the settings and finishes the wizard.
	Next	Click on "Next" to continue.

Note: This dialog is only available when a network connection is present or a network card is fitted.

Specify cameras

Menu "System" ➤ "Configuration wizard" ➤ "Next"
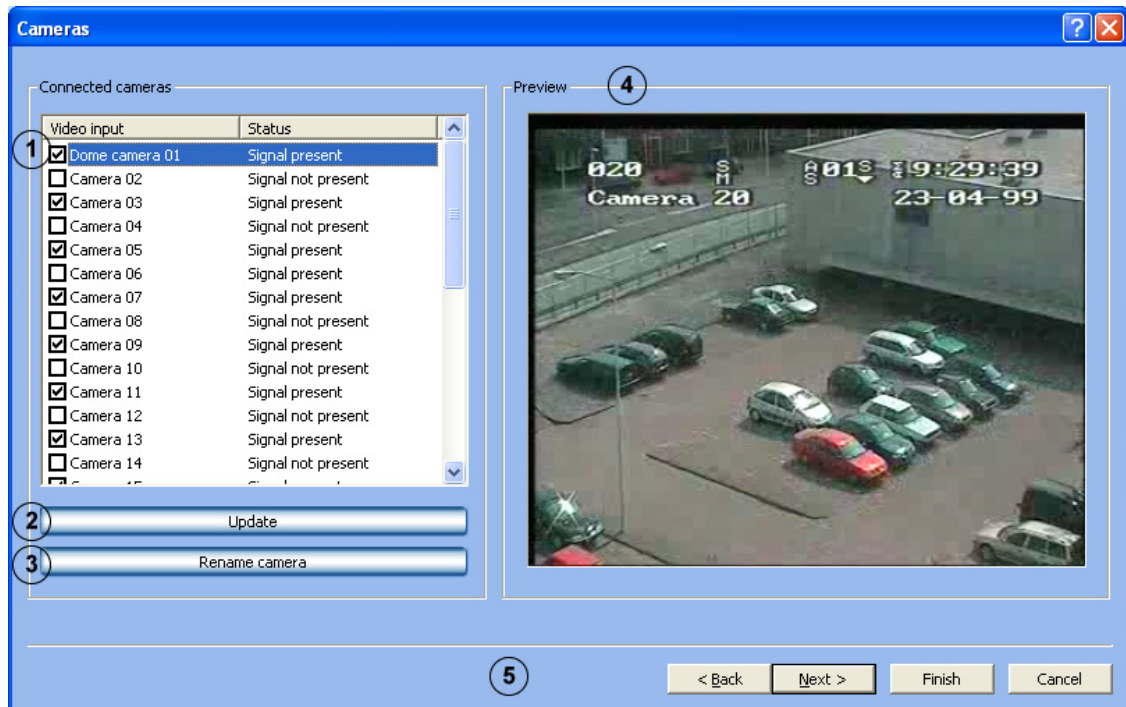
The dialog box displays all video inputs of the grabber cards present. Cameras already connected are recognized.

1	Connected cameras	Activate the check box of the desired video input to add cameras that have been connected later.
2	Update	Click on the button to display cameras that have been connected after the wizard has started.
3	Rename camera	Select the camera whose name you want to change and click on the button. Then enter the new name.
4	Preview	Shows the image from the selected camera.
5	Finish	Saves the settings and finishes the wizard.
	Next	Click on "Next" to continue.

Assigning time profiles

Menu "System" ➤ "Configuration wizard" ➤ "Next"
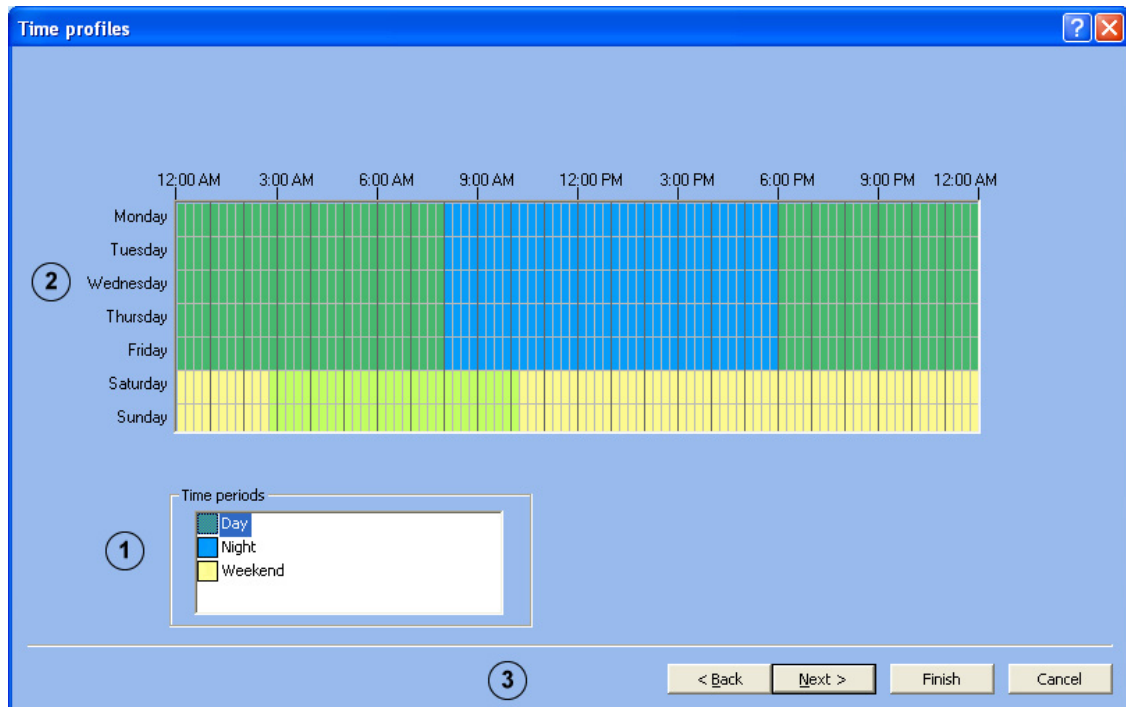
Assignment of the time periods is done with the mouse cursor in a graphical time planner. There are three time periods available. These time periods can be assigned to any day of the week. The time periods are displayed in different colors.

1	Time periods	Select the time period that you want to assign to a day.
2	Graphical time planner	Move the mouse cursor into the graphical time planner. Clicking with the left mouse button marks a cell. Dragging up a square while pressing the left mouse button marks a time period. All selected cells take the color of the selected time period.
		Note: The 24 hours of the day are displayed on the horizontal axis of the graphical time planner. Each hour is subdivided into four cells. A cell is the smallest selectable time unit and represents 15 minutes. The days are shown on the vertical axis. To edit marked cells in the graphical time planner, select another time period and "overwrite" the cell already marked.
3	Finish	Saves the settings and finishes the wizard.
	Next	Click on "Next" to continue.

Set up recording

Menu "System" → "Configuration wizard" → "Next"

In this dialog box, you determine the type of recording, recording rate, recording quality and pre- and post-alarm time.

1	Enabling recording	You can here select whether continuous, motion, or alarm recording for all cameras, no cameras or for specific cameras should take place.
	Continuous recording Motion recording Alarm recording	**All:** The type of recording is the same for all cameras, for example permanent recording on all cameras.
		None: No camera records
		Selection: The type of recording should apply only to specific cameras. To do so, click on "Select camera" and choose the cameras.
2	Recording settings	Specifies the recording rate and quality.
	Continuous recording Motion recording Alarm recording	Select the recording rate and quality for each type of recording. The recording rate can be entered for each time period.
		Note: If column (Day, Night, Weekend) is grayed out, no time periods are assigned in the "Time profile" dialog.
3	Pre-alarm time [sec.]:	Enter the pre-alarm time for alarm and motion detection. Values from 0 to 120 seconds are allowed.
		Note: The recording rate during the pre- and post-alarm time is at least 2 images per second. If the rate is higher than 2 images per second, this value is taken.

4	Post-alarm time [secs]:	Enter the post-alarm time. Values from 0 to 999 seconds are allowed.
5	Finish	Click on the button to exit the basic configuration. The video system is then started. Log in with your user name and password. Make further configuration entries if necessary.
		Note: The wizard automatically creates a job for each camera when it finishes. The camera number and the job number are identical, e.g. Camera 01 - Job 01, Camera 02 - Job 02, up to a maximum of Camera 30 - Job 30. If the wizard is run again, all previous settings with the designation Job 01, Job 02 ... Job 30 are overwritten. If you do not want this to happen: Edit the designation of the jobs in the configuration and do not name the newly configured jobs as Job 01, Job 02, etc.

5 Default configuration

The default configuration allows more complex applications or customer wishes to be catered for than the configuration wizard.

Go through the configuration tree from top to bottom by clicking on individual menu points and making the corresponding entries.

A switch to the configuration wizard from the standard configuration is possible at any time without loss of data.
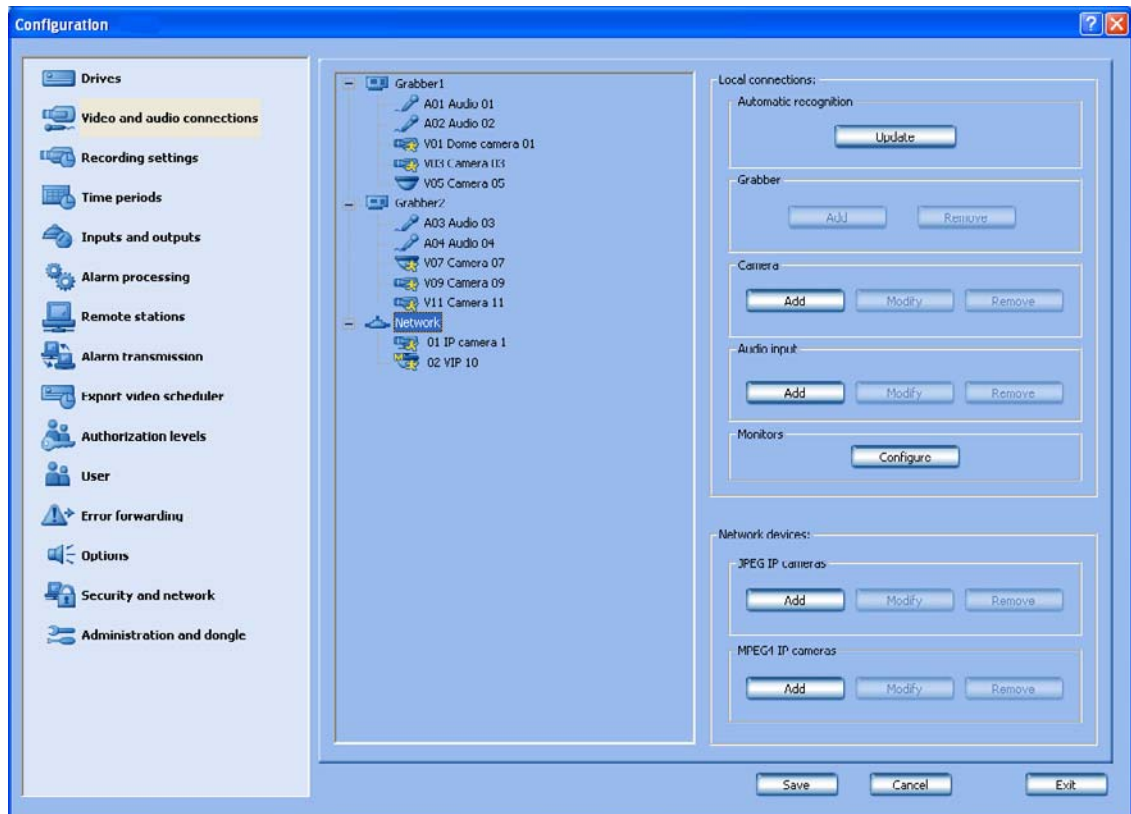
5.1 Configure drives

Menu "Drives"
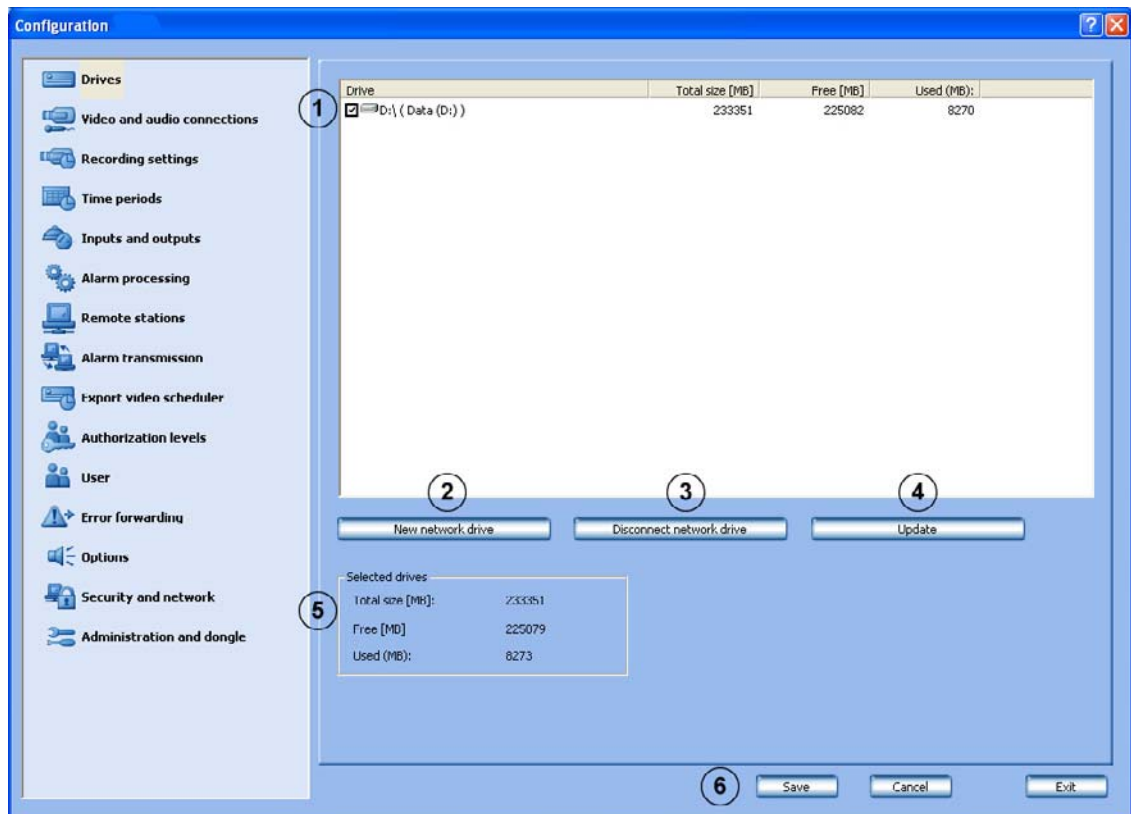
This dialog box gives you an overview of the hard drives and network drives available.

1		The list field contains all hard drives and network drives known to the system. The total size, the free storage capacity and the used storage capacity are shown in MByte. The drives listed can be activated or deactivated. Activate the drive by clicking the check box. ☑ D:\ The drive is activated. ☐ D:\ The drive is not activated.
2	New network drive	A new drive can be added.
3	Disconnect network drive	Disconnects a drive. Select the drive and click on the button.
4	Update	If an additional drive is put into operation during the configuration, this can be included in the list field by clicking "Update".

5	Selected drives	The total storage capacity, the free storage capacity and the used storage capacity are shown in MByte for activated drives.
6	Save	Entries saved.

5.2 Configure video and audio connections

Menu "Video and audio connections"

Connections overview	Right side of dialog box
Gives you an overview of the local system: • Number of active grabber cards with the cameras and audio sources connected to them. • Number of network components (IP cameras)	Grabbers, cameras, audio sources, monitors and IP cameras can be added, edited or removed.

Automatic recognition of locally connected components

1. Click on "Update" in the section "Automatic recognition". Locally connected grabbers and analog cameras are recognized by the system and shown graphically in the connection overview.

Add grabber

1. Select a grabber in the connection overview.
2. In the section "Grabber", click on "Add". A dialog box for grabber selection appears.

Add cameras or audio inputs

1. In the selection overview, select the grabber to which you want to add cameras or audio inputs.
2. In the section "Camera" or "Audio input", click on "Add". A dialog box for camera or audio selection appears.

Edit cameras or audio inputs settings

1. Select the camera or audio input in the connection overview.
2. In the section "Camera" or "Audio input", click on "Edit". A dialog box for editing camera or audio settings appears.

Remove grabber, cameras or audio inputs

1. Select the components in the connection overview.
2. Click on "Remove" in the appropriate section. The component is removed.

Configure monitors

1. In the section "Monitors", click on "Configure". The A dialog box for configuration of locally connected monitors appears.

Add network camera

1. Select the designation "Network devices" in the connection overview.
2. In the section "JPEG IP cameras" or "MPEG cameras", click on "Add". A network camera is added.

Edit network camera settings

1. Select the camera in the connection overview.
2. In the section "JPEG IP cameras" or "MPEG cameras", click on "Edit". A dialog box for editing the camera settings appears.

Remove network cameras

1. Select the camera in the connection overview.
2. In the section "JPEG IP cameras" or "MPEG4 IP cameras", click on "Remove". The camera is removed.

Note:

*   The system can automatically recognize built-in grabbers and directly connected cameras.
*   A maximum of five grabbers can be built into one DiBos.
*   A maximum of two grabbers can be built into one DiBos Micro.
*   A maximum of 6 cameras and 2 audio inputs can be assigned to each grabber.
*   In addition to a VGA monitor, two video monitors can be locally connected.
*   The number of IP cameras depends on the extension level of the system.

General camera settings

Menu "Video and audio connections" ➜ Section "Camera" ➜ "Edit"

Edit the settings for each camera as desired.

1	General settings	Click on the tab.
2	Name:	Enter the name of the camera.
3	Show camera warnings	Activate the check box when a warning should be shown on camera problems (too light, too dark, noisy). **Note:** The values that trigger the warning cannot be changed.
4	Video loss	Activate the check box if a warning is to be displayed if no signal comes from the camera.
5	Bilinx settings	Click on the button to call the Bilinx camera navigation menu. **Note:** Only selectable for Bilinx-capable cameras.
6	Image settings	Set brightness, contrast, color and hue. You can see the result of these settings in the camera image.
7	AGC (AGC = automatic gain control)	Activate this check box when the camera signal on the grabber should be amplified.
8	Gain:	Manually correct the input level amplification at the grabber using the slider. **Note:** Only possible when "AGC" is not activated.

9	Use default	The standard image settings are saved.
		Note: The image properties (incl. AGC/Gain) are reset to the factory settings.
10	Audio input	Click on the down arrow and assign the camera an audio input if necessary.
		Note: One audio input can be assigned to multiple cameras.
11	OK	Entries saved.

Set up dome cameras

Menu "Video and audio connections" � Section "Camera" � "Edit"

Edit the settings for each camera as desired.

1	Dome settings	Click on the tab.
2	Activate	Select the check box if the camera is a dome camera.

Make interface settings

3	Interface	The interface settings must be made first. Only then can further dome settings follow.
	Connection:	Click on the down arrow, and select the interface (BLX = Bilinx, GBPx = Grabber Biphase port, COMx = serial RS232 port).
	Settings...	Click on the button. A dialog box opens. Edit the settings for the COM interface (bits per second, data bits, stop bits, parity, etc.). The settings depend on the type of camera. They can be found in the dome camera handbook.
	Protocol:	Select the protocol depending on the camera connected.
	Camera address:	Enter the address of the camera. The address is set in the camera.

Save camera positions

You can specify positions for dome cameras to which you can repeatedly pan automatically. The user can quickly select these positions in the live image, assuming that these have been enabled for his level of authorization. An automatic go-to if an event occurs is also possible.

Proceed as follows to save a new position:

- Select a free ID.
- Pan the camera to the position and zoom the image as desired.
- Save the procedure.

4	Saved positions	
	ID Name	Click on the down arrow beside the list field and select an unused number when you want to save a new position, or select an already saved position to edit it.
		Note: When the user selects this name, the camera automatically moves to this camera position.
	This is how the camera is controlled.	**The camera is panned as follows:**
		Move the mouse cursor around in the camera image until the directional arrow points in the direction in which you want to pan the camera. Then hold the left mouse button down. The camera pans in the direction of the arrow, this speed increasing the further you move the arrow outwards (with the left mouse button pressed).
		You zoom as follows:
		Move the mouse cursor around in the camera image window until a magnifying glass with a plus or minus sign appears. Left click with the mouse to zoom the camera. Magnifying glass with a plus sign: Camera moves in towards the object. Magnifying glass with a minus sign: Camera moves outwards away from the object.
	Save	Click on the button to save. A dialog box opens. Enter a meaningful name and confirm the entry. A message confirms the save.
	Display	To check, select saved position and click the button. The camera moves to the saved position.
	Delete	Select a saved position and click on the button.

Enter control commands via the command line

You can here specify various commands for dome cameras or matrix switches via a command line. These commands can be called manually or automatically. The possible commands can be found in the operating manual of the respective camera or matrix switch. The user can quickly select these commands in the live image, assuming that these have been enabled for his level of authorization.

5	Camera command line	
		First line: The list contains preset control commands that you can choose from. Middle line (command line): The command that you selected in the first line is displayed. As an alternative, there exists in this line the possibility of creating a new command if you do not find this in the list field for the first line. Bottom line: Assign the command a free number.
	Transmit	Click on the button to check the command.
	Save...	Click on the button to save. A dialog box opens. Enter a meaningful name and confirm the entry. A message confirms the save. **Note:** The command is available on the user interface.
	Delete	The saved command will be deleted.

Camera control

The iris and the focus can be set for each camera.

6	Bilinx status:	The status is displayed.
	Iris and focus...	Click on the button. A dialog box opens to allow you to set iris and focus.

Entries saved

7	OK	Entries saved.

Specify monitoring zone for motion cameras

Menu "Video and audio connections" → Section "Camera" → "Edit"

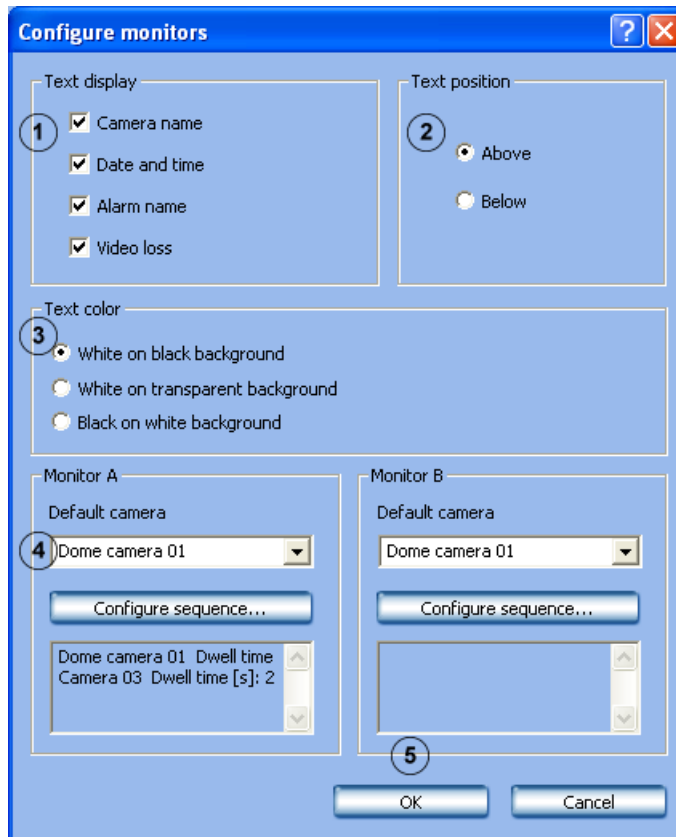Edit the settings for each camera as desired.

1	Motion	Click on the tab. The entire image content inside the blue frame is initially sensitive, i.e. motion is monitored. If you want to limit the area to be monitored then carry out the next point.
2	Activate	Select the check box to activate motion.
3	Within the blue frame	
	Left click or hold the left mouse button down and drag an area.	A minus sign appears beside the mouse cursor to show that the area is not sensitive and will not be assessed during motion detection. Non-sensitive areas are shown shaded.
	Right click or hold the right mouse button down and drag up an area	A plus sign appears beside the mouse cursor to show that the area is sensitive and will be assessed during motion detection. Sensitive areas are shown unshaded.

4	Sensitivity	Change the sensitivity when the results of motion detection are not satisfactory.
	high	The sensitivity increases i.e. to trigger an alarm smaller changes in the edges, the brightness and the motion are needed.
	low	The sensitivity decreases i.e. to trigger an alarm larger changes in the edges, the brightness and the motion are needed.
5	Grid - show	A grid is shown in the image when the check box is activated. The sizes of the drawn-in sensitive/insensitive areas are oriented towards the grid.
6	Close	

Configure video monitors

Menu "Video and audio connections" → Section "Monitors" → "Configure"

Specify the text display and the standard camera sequence for the video monitors.

1	Text display	Select what should be shown on the monitors, for example camera name, date and time, etc.
2	Text position	Select where on the monitor the display should be.
3	Text color	Select what the display should look like, e.g. white on a black background.
4	Monitor A/Monitor B Default camera Configure sequence	The default camera and sequence can be started here. Select which camera should be displayed as standard. Click on the button if you want to specify a default camera sequence. A dialog box opens. Make your selection here.
5	OK	Entries saved.

**Configure standard camera sequence**

Menu "Video and audio connections" → Section "Monitors" → "Configure" →
"Section Monitor A/B" → "Configure sequence"

1	Add	Click on the button. A dialog box opens. Select the cameras you wish to add to the sequence.
2	Edit	Click on the button. A dialog box opens. Make the changes here.
3	Delete	Deletes the camera from the sequence. First select the camera in the list field.
4	▲ ▼	Changes the order of the cameras in the sequence. To do so, select the camera in the list field and click on the up or down arrow.
5	OK	Entries saved.

Edit audio settings

Menu "Video and audio connections" ⟶ Section "Audio input" ⟶ "Edit"
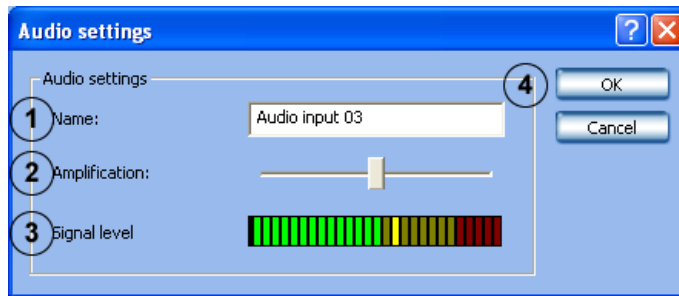
Here you can edit the names and the amplification of each individual audio input.

1	Name:	The name of the audio input is displayed and can be edited.
2	Amplification:	The amplification of the audio input can be changed with the slider. **Note:** Slider all the way left = minimum amplification Slider all the way right = maximum amplification
3	Signal level	Shows the signal level selected with the slider graphically. From the color, you can see if the sound is being received without distortion or if you need to change the amplification. Green = sound is too soft Yellow = sound is optimally set Red = sound is over-driven
4	OK	Entries saved.

Configure JPEG IP cameras

Menu "Video and audio connections" ➜ Section "JPEG IP Cameras" ➜ "Edit"

In this menu, only those cameras from which JPEG images can be called via the http protocol can be configured.

Depending on the model, a maximum of 32 network devices (JPEG cameras and MPEG4 units from Bosch) can be connected.

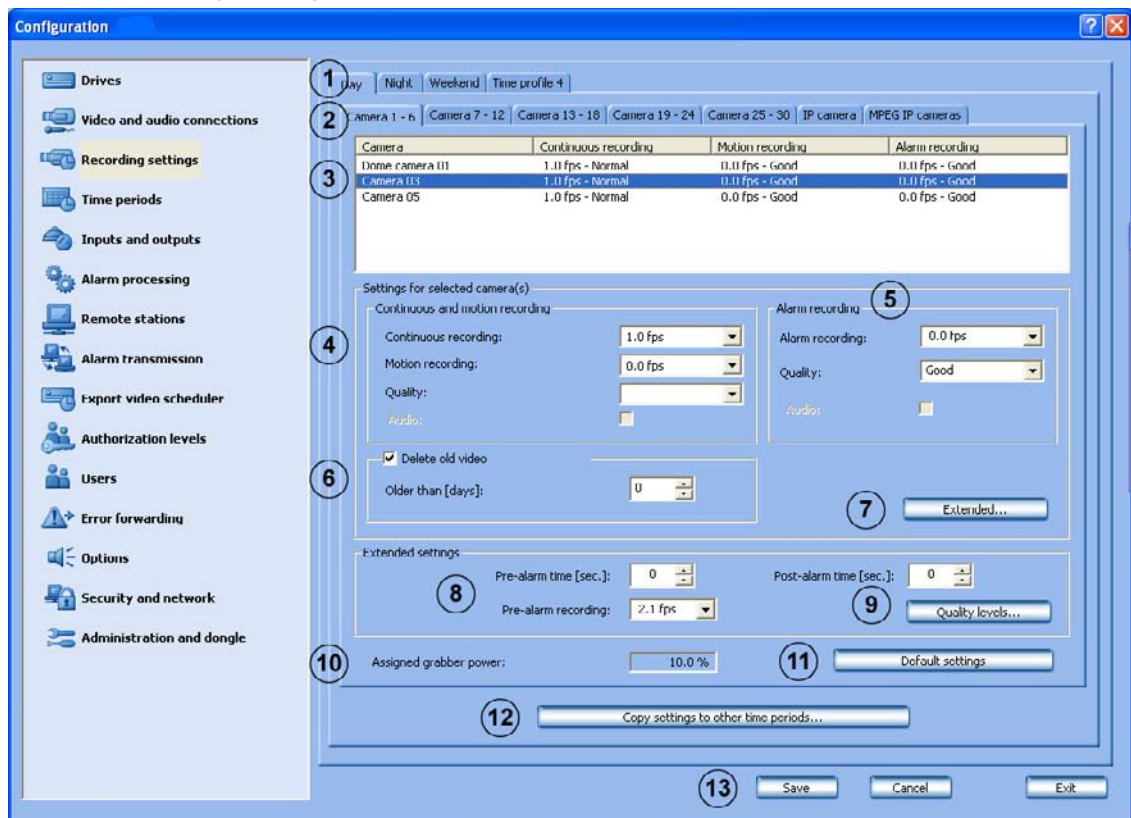|		
1	Address:	Enter the address (URL) of the camera and the command to call up live images.
		Note: Axis: http://"IP address"/jpg/image.jpg Mobotix: http://"IP address"/record/current.jpg
2	Display	When you click on the button, you can check whether the entered URL and command are correct. If so, the camera picture appears.
3	Name:	Enter the name of the camera.
4	Max. no. of images per sec.:	Activate this check box and enter the number of images per second to be called up.
5	User name: Password:	Enter the camera user name and password needed for login (e. g. Mobotix banking camera).

6	Motion camera	The video system can be controlled by triggering of the sensor technology, if the IP camera is a camera with motion detection. Activate the check box for this.
	Port:	Enter the port to which the camera sends the motion information.
	On command:	Here you enter the command that the camera sends when the motion detection triggers. **Note:** The command can be found in the handbook for the camera used.
	Off command:	Here you enter the command that the camera sends when motion detection has ended.
7	OK	Entries saved.

Configure MPEG4 IP cameras

Menu "Video and audio connections" ➡ Section "MPEG4 IP Cameras" ➡ "Edit"

In this menu, only MPEG4 units from Bosch from which MPEG4 images can be called up can be configured (e. g. VideoJet, VIP).

Depending on the model, a maximum of 32 network devices (JPEG cameras and MPEG4 units from Bosch) can be connected.

1	IP address:	Enter the address (URL) of the MPEG4 unit from which images are to be called up.
	Name:	Enter the name of the MPEG4 unit.
	Live encoder number:	Select the encoder of the MPEG4 unit (Encoder 1 or Encoder 2).
	Motion camera	The video system can be controlled by triggering of the sensor technology, if the MPEG4 unit has motion detection. Activate the check box for this. **Note:** Under "Alarm processing", the name of the MPEG4 unit appears in the "Trigger" section. The trigger can, for example, be selected such that it controls recording.
	Save	Entries saved.
2	User name: Password:	Enter the user name and password of the MPEG4 units needed for login (e. g. when user name and password are configured in the MPEG4 unit).

3	Activate alarm input	Activate this check box when triggering of the input on the MPEG4 unit is to be used for control of the video system.
	Name of alarm input:	Enter the name of the alarm input.
	Activate relay	Activate this check box when the relay output of the MPEG4 unit is to be controlled by the video system.
	Relay name:	Enter the name of the relay output.
4	Activate audio input	Activate this check box when the audio input of the MPEG4 unit is to be used.
	Audio name:	Enter the name of the audio input.
5	OK	Entries saved.

5.3   Configure recording settings

Configure recording settings for analog cameras

Menu "Recording settings" ➡ Tab "Camera x-y"

1	Day I Night I Weekend ...	All configured time periods are displayed as tabs. Select the time period to which the settings should apply.
		Note: Only the time periods configured under "Time periods" are displayed.
2	Camera 1-6 I Camera 7-12 I ...	Select the tab. Tabs with cameras are displayed for each time period. Select the tab with the camera for which you want to edit the settings. The associated list field shows all cameras attached to the same grabber card.
		Note: The number of tabs depends on the number of grabber cards and network components in the system. IP camera tabs are only shown when IP cameras are configured.

3	In camera list field	Select the camera for which you want to edit the settings.
		Note: Multiple cameras can be selected and set up jointly. The settings in points 4 - 7 only refer to the selected cameras and the associated time periods.
4	Continuous and motion recording	Edit the settings for continuous and motion recording.
	Continuous recording: Motion recording:	Select the recording rate for continuous and motion recording
		Note: Recording only takes place when a value greater than "0 fps" is selected.
	Quality:	Select the recording quality. The selection possibilities are valid for continuous and motion recording.
		Note: Four quality levels are defined in the system. Further recording qualities can be added. To do so, click on "Quality levels...".
	Audio:	Activate this check box when audio should also be recorded.
		Note: Audio can only be selected when the camera has been assigned an audio input. This is done under "Video and audio connections ➤ Add or edit camera ➤ General settings ➤ Audio input". An audio recording is made for continuous and/or motion recording.
5	Alarm recording	Edit the settings for alarm recording.
	Alarm recording:	Select the recording rate.
		Note: If the recording rate exceeds the grabber performance, this is announced by the system. If the user ignores this message, recording is made at the greatest rate possible.
	Quality:	Select the recording quality.
		Note: Four quality levels are defined in the system. Further recording qualities can be added. To do so, click on "Quality levels...".
	Audio:	Activate this check box when audio should also be recorded.
6	Delete old video	Activate this check box when you want to delete data.
	Older than [days]:	Enter the value from which data should be deleted. For example: "3" means that all data should be deleted that is older than 3 days.

7	Extended...	Click on the button. A dialog box opens. Here you can edit the settings for each camera.
8	Extended settings	The information on pre- and post-alarm time and pre-alarm recording are valid for the selected time period and for all cameras on the camera tab.
		Note: If the cameras are assigned differing values, this is marked by an asterisk (*).
	Pre-alarm time:	Enter the pre-alarm time.
		Note: The maximum pre-alarm time is 120 seconds. The standard setting is 0 seconds.
	Post-alarm time:	Enter the post-alarm time.
		Note: The maximum post-alarm time is 999 seconds. The standard setting is 0 seconds.
	Pre-alarm recording:	Select the recording rate.
9	Quality levels...	Click on the button. A dialog box opens. You can add or edit recording qualities.
10	Assigned grabber power	The system calculates, per camera tab (grabber) and time period, the sum of the recording rates for continuous and motion recording.
		Note: If the result exceeds the grabber performance (more than 100%), the user cannot save the settings.
11	Default settings	Click on the button to see the standard settings.
12	Copy settings to other time periods...	Copies cameras and their settings to another time period. Click on the button. A dialog box opens. Select the time period.
13	Save	Entries saved.

Extended recording settings for analog cameras

Menu "Recording settings" ➤ button "Extended..."
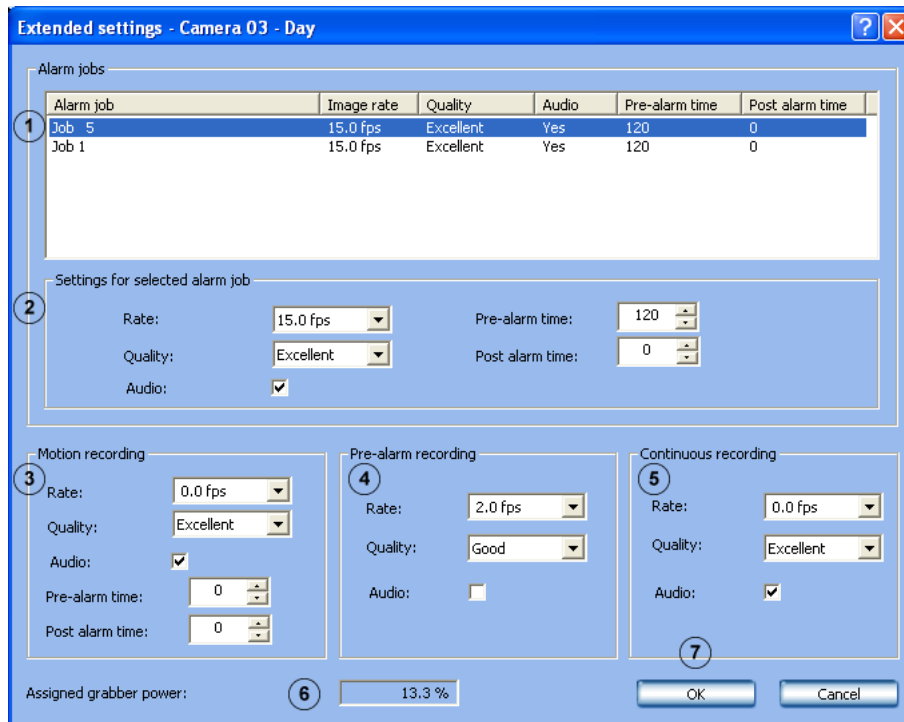
In this dialog box you can edit individual settings.

1	Alarm jobs	The list field shows all jobs where this camera is in the alarm recording list.
		Note: The alarm jobs are added according to the configuration in the list field.
2	Settings for selected alarm job	First select a job in the list field. The settings for the selected job are displayed.
		Note: If the jobs are assigned differing values, this is marked by an asterisk (*).
	Rate:	Select the recording rate for the job.
	Quality:	Select the recording quality for the job.
		Note: Four quality levels are defined in the system. Further recording qualities can be added. To do so, click on "Quality levels...".
	Audio:	Activate this check box when audio should also be recorded along with this job.
		Note: The audio input must be assigned to the camera. This is done under "Video and audio connections ➤ Add or edit camera ➤ General settings ➤ Audio input".

2	Pre-alarm time:	Enter the pre-alarm time.
		Note: The maximum pre-alarm time is 120 seconds. The standard setting is 0 seconds.
	Post-alarm time:	Enter the post-alarm time.
		Note: The maximum post-alarm time is 999 seconds. The standard setting is 0 seconds.
3	Motion recording	Edit the settings for motion recording.
	Rate:	Select the recording rate.
	Quality:	Select the recording quality.
	Audio:	Activate this check box when audio should also be recorded.
	Pre-alarm time:	Enter the pre-alarm time.
		Note: The maximum pre-alarm time is 120 seconds. The standard setting is 0 seconds.
	Post-alarm time:	Enter the post-alarm time.
		Note: The maximum post-alarm time is 999 seconds. The standard setting is 0 seconds.
4	Pre-alarm recording	Edit the settings for pre-alarm recording.
	Rate:	Select the recording rate.
	Quality:	Select the recording quality.
5	Continuous recording	Edit the settings for continuous recording.
	Rate:	Select the recording rate.
		Note: The value "0" means no recording.
	Quality:	Select the recording quality.
	Audio:	Activate this check box when audio should also be recorded.
6	Assigned grabber power:	The system calculates, per camera tab and time profile, the sum of the recording rates for continuous and motion recording.
		Note: If the result exceeds the grabber performance (more than 100%), the user cannot save the settings.
7	OK	Entries saved.

Specify recording quality for analog cameras

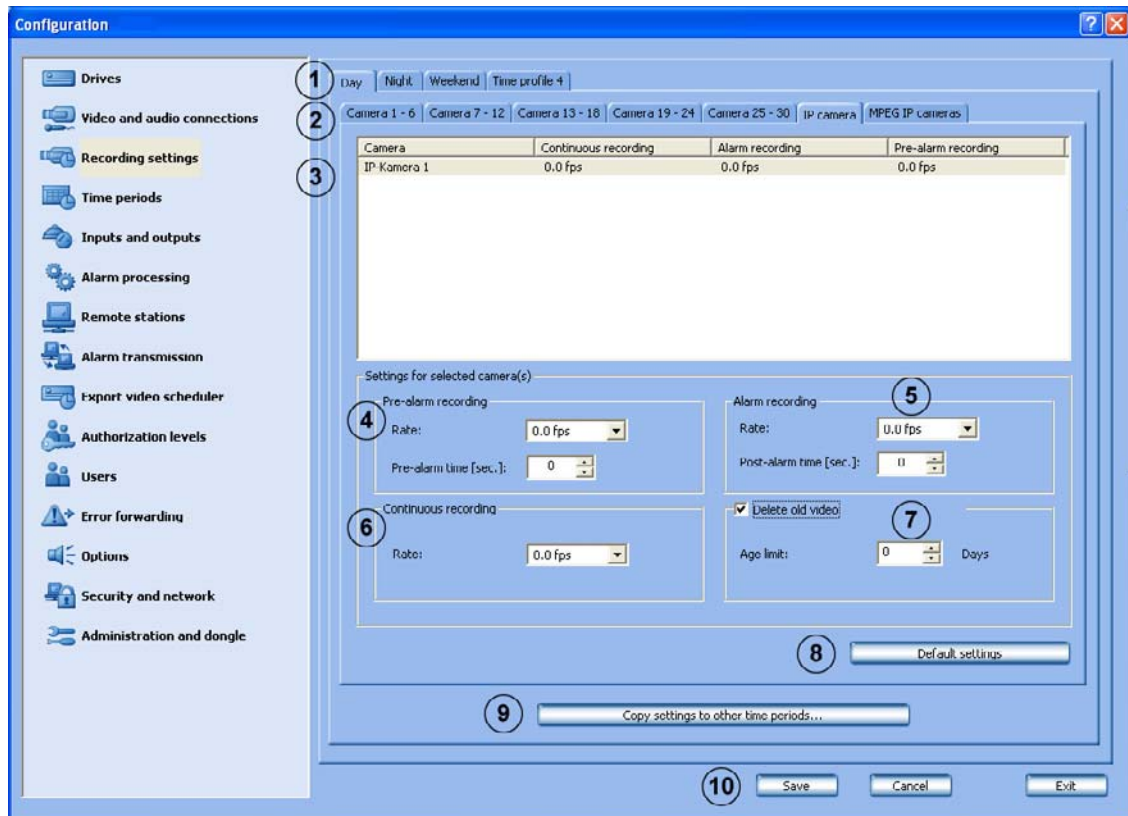Menu "Recording settings" ➥ button "Quality levels..."
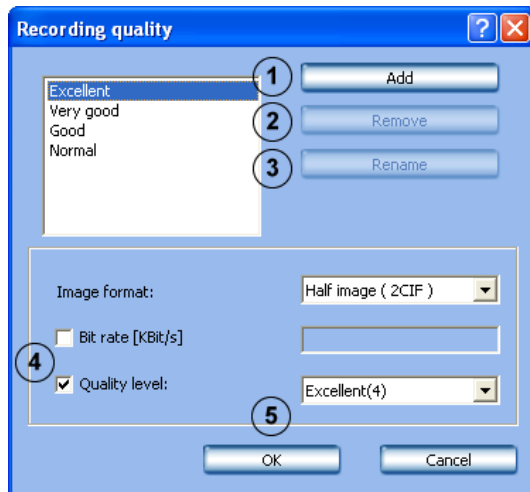
In this dialog box you can edit existing recording qualities or add new quality levels.

1	Add	Adds a new recording quality.
2	Remove	An existing quality level is removed.
3	Rename	The name of the quality level can be edited.
4	Image format	Select the image format.
	Bit rate [KBits/sec]	Activate this check box and enter a maximum value for the bit rate. **Note:** If no value is entered, the bit rate is variable.
	Quality level:	Activate the check box and select the quality level.
5	OK	Entries saved.

Configure recording settings of JPEG IP cameras

Menu "Recording settings" ➞ Tab "IP cameras"

1	Day I Night I Weekend ...	All configured time profiles are displayed as tabs. Select the time profile to which the settings should apply. **Note:** Only the time profile configured under "Time periods" is displayed.
2	IP camera	Select the tab. All JPEG IP cameras are displayed in the list field underneath.
3	In camera list field	Select the camera for which you want to edit the settings.
4	Pre-alarm recording Rate: Pre-alarm time [sec,]:	Edit the settings for pre-alarm recording. Select the recording rate. Enter the pre-alarm time. **Note:** The maximum pre-alarm time is 120 seconds. The standard setting is 0 seconds.

5	Alarm recording	Edit the settings for alarm recording.
	Rate:	Select the recording rate.
	Post-alarm time:	Enter the post-alarm time.
		Note: The maximum post-alarm time is 999 seconds. The standard setting is 0 seconds.
6	Continuous recording	Edit the settings for continuous recording.
	Rate:	Select the recording rate.
7	Delete old video	Activate this check box when you want to delete data.
	Age limit:	Enter the value from which data should be deleted. For example: "3" means that all data should be deleted that is older than 3 days.
8	Default settings	Click on the button to see the standard settings.
9	Copy settings to other time periods...	Copies cameras and their settings to another time period. Click on the button. A dialog box opens. Select the time period.
10	Save	Entries saved.

Configure recording settings of MPEG4 IP cameras

Menu "Recording settings" → Tab "MPEG IP cameras"

1	Day I Night I Weekend ...	All configured time profiles are displayed as tabs. Select the time profile to which the settings should apply. **Note:** Only the time profile configured under "Time periods" is displayed.
2	MPEG IP cameras	Select the tab. All MPEG IP cameras are displayed in the list field underneath.
3	In camera list field	Select the camera for which you want to edit the settings.
4	Pre-alarm recording	Edit the settings for pre-alarm recording.
	Encoder:	Select the encoder of the MPEG4 unit (Encoder 1 or Encoder 2).
	Audio	Activate this check box when audio should also be recorded. **Note:** Audio can only be selected if, under "Video and audio connections → MPEG4 IP cameras - Edit → General settings", "Activate audio input" is selected.
	Pre-alarm time:	Enter the pre-alarm time. **Note:** The maximum pre-alarm time is 120 seconds. The standard setting is 0 seconds.

5	Alarm recording	Edit the settings for alarm recording.
	Encoder:	Select the encoder of the MPEG4 unit (Encoder 1 or Encoder 2).
	Audio	Activate this check box when audio should also be recorded.
	Post-alarm time:	Enter the post-alarm time.
		Note: The maximum post-alarm time is 999 seconds. The standard setting is 0 seconds.
6	Continuous recording	Edit the settings for continuous recording.
	Encoder:	Select the encoder of the MPEG4 unit (Encoder 1 or Encoder 2).
	Audio	Activate this check box when audio should also be recorded.
7	Delete old video	Activate this check box when you want to delete data.
	Age limit:	Enter the value from which data should be deleted. For example: "3" means that all data should be deleted that is older than 3 days.
8	Default settings	Click on the button to see the standard settings.
9	Copy settings to other time periods...	Copies cameras and their settings to another time period. Click on the button. A dialog box opens. Select the time period.
10	Save	Entries saved.

5.4   Configure time periods

Menu "Time periods"
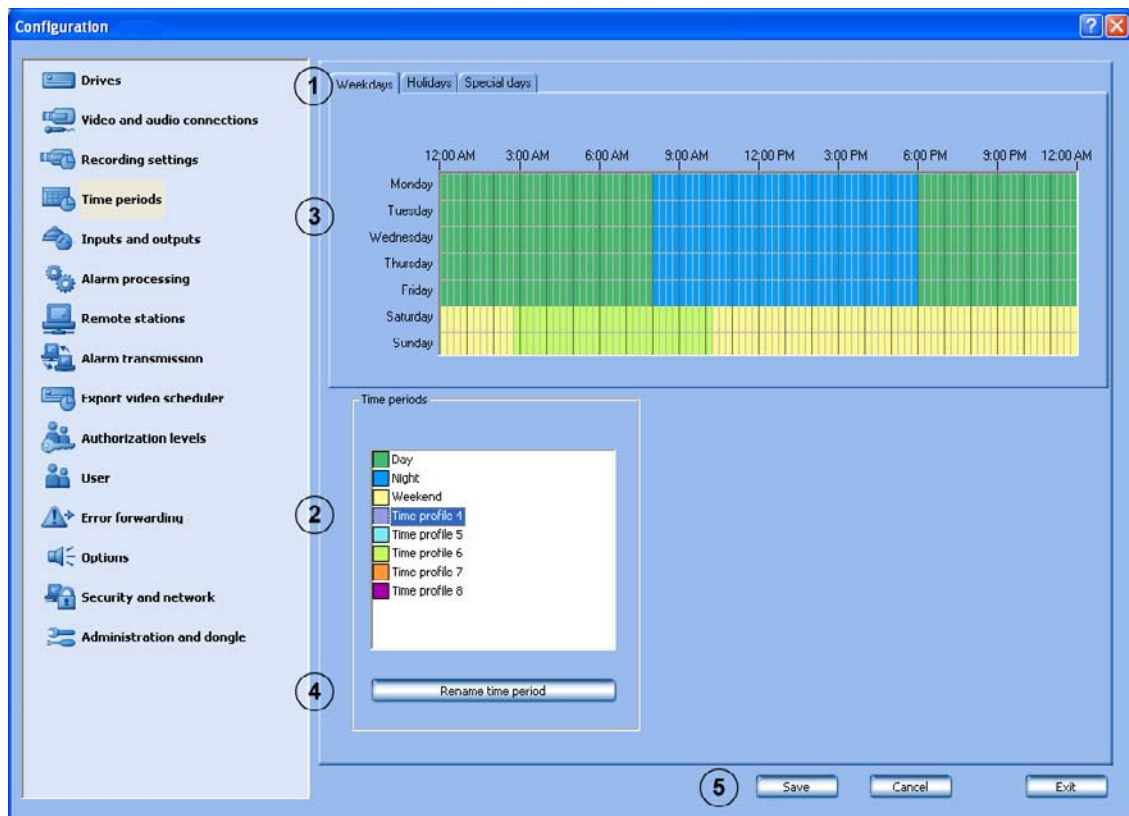
Assignment of the time periods is done with the mouse cursor in a graphical time planner. There are 8 time periods available. These time periods can be assigned to any day of the week, individual holidays and special days. The time periods are displayed in different colors.

1	Weekdays Holidays Special days	Select the corresponding tab. **Note:** You can add holidays or special days if you have selected the "Holidays" or "Special days" tab.
2	Time periods	Select the time period to which you want to assign a day.
3	Graphical time planner	Move the mouse cursor into the graphical time planner. Clicking with the left mouse button marks a cell. Dragging up a square while pressing the left mouse button marks a time period. All selected cells take the color of the selected time period. **Note:** The 24 hours of the day are displayed on the horizontal axis of the graphical time planner. Each hour is subdivided into four cells. A cell is the smallest selectable time unit and represents 15 minutes. The days are shown on the vertical axis. To edit marked cells in the graphical time planner, select another time period and "overwrite" the cell already marked.

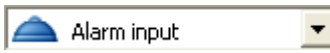| 4	Rename time period	To change the name. Select a time period and click on the button. Enter a new name and confirm the entry with the "Enter" key.
5	Save	Entries saved.

5.5 Configure inputs and outputs

Configure alarm inputs

Menu "Inputs and outputs" ➞ Tab "Alarm inputs"
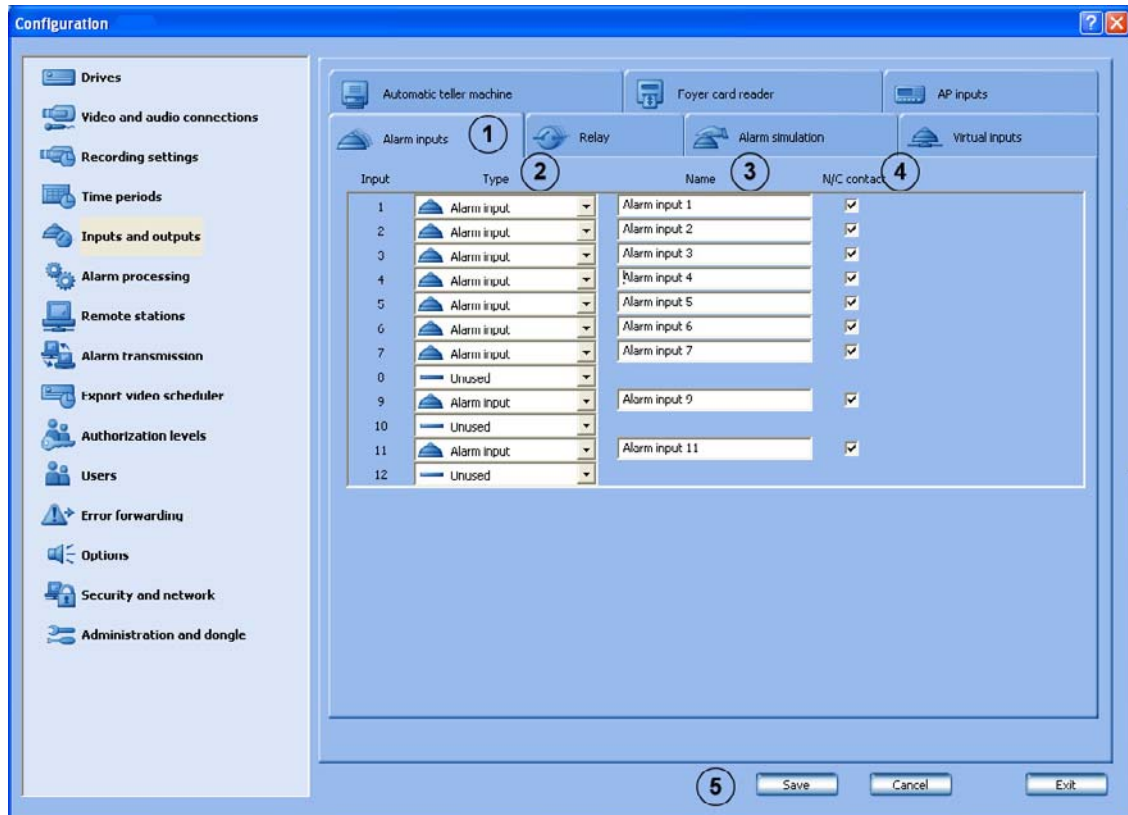
This dialog box allows activation and deactivation of the alarm inputs and the selection of the standby condition.

There are 32 alarm inputs available.

1	Alarm inputs	Click on the tab.
2	Type	Click on the down arrow in the column and select whether an input is to be configured or not.
	Alarm input	The input is assessed as an alarm input.
	unused	The input is not assessed as an alarm input.
3	Name	Place the cursor in the column and enter the name of the alarm input.
4	N/C contact	Specify whether an N/C or N/O contact is connected to the alarm input.
	☑	N/C contact connected.
	☐	N/O contact connected.
5	Save	Entries saved.

Configure relay outputs

Menu "Inputs and outputs" ➞ Tab "Relay"
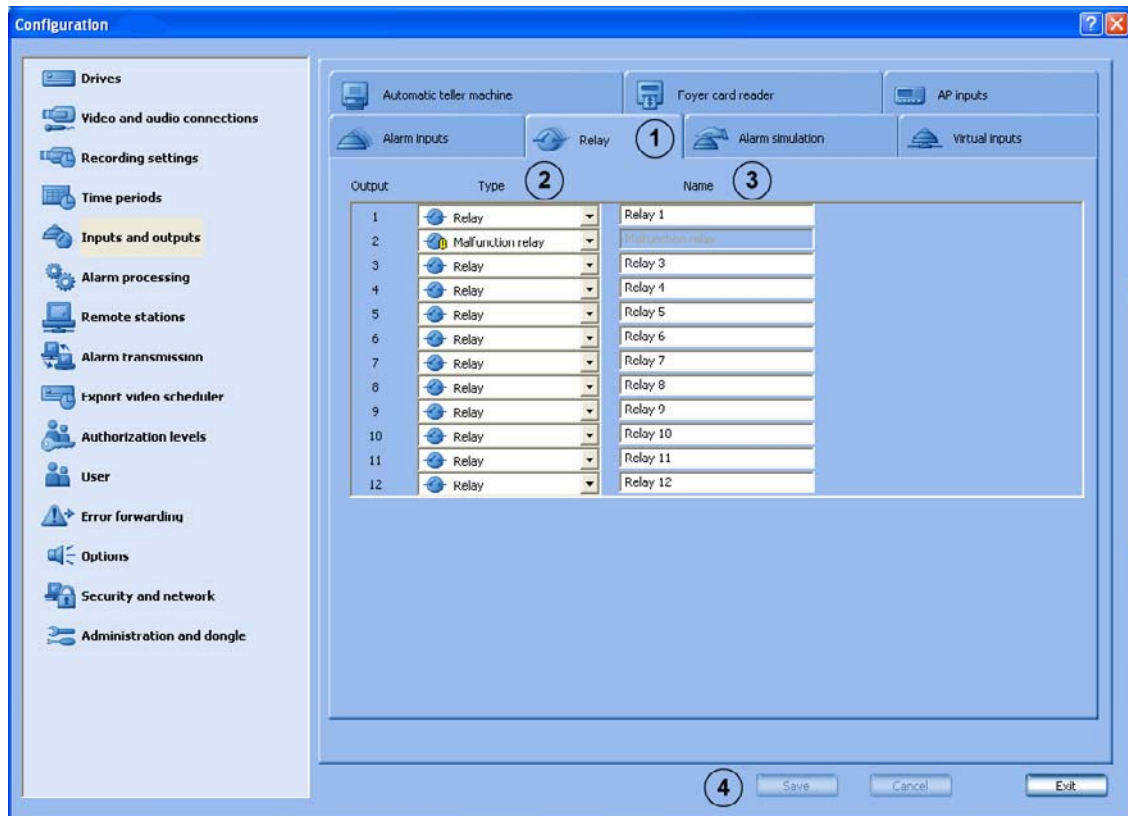
The number of relay outputs depends on the model. There are 16 relay outputs available.

The relays can be activated locally by a remote station, or via a browser.
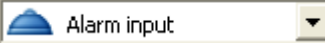
1	Relay	Click on the tab.
2	Type	Click on the down arrow in the column and select whether an output is to be activated or not.
	Relay	The relay output is activated.
	Malfunction relay	A malfunction relay can be connected to the relay output. **Note:** Only one malfunction relay can be connected. The events that trigger the malfunction relay can be found in the "Connecting a malfunction relay" chapter.
	unused	The relay output is not activated.
3	Name	Place the cursor in the column and enter the name.
4	Save	Entries saved.

Configure alarm simulation
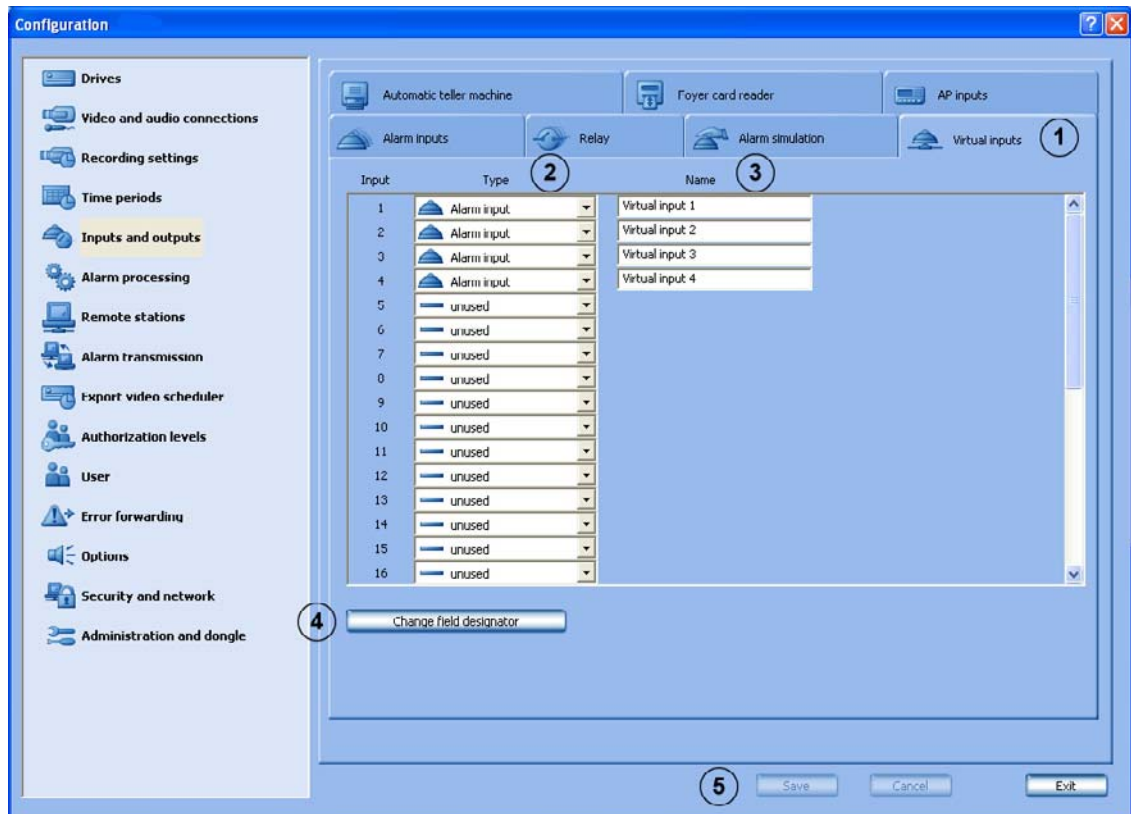
Menu "Inputs and outputs" ➥ Tab "Alarm simulation"
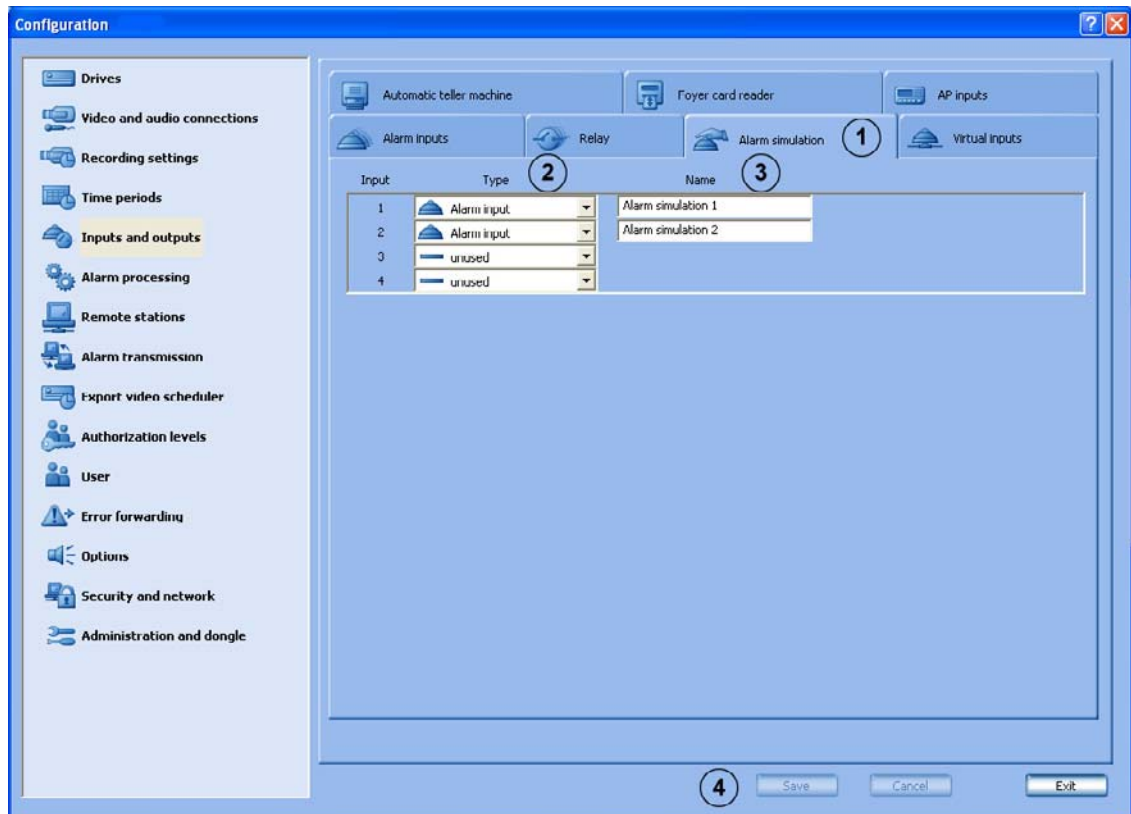
The video system supports 4 inputs for the triggering of user alarms in the user interface.

1	Alarm simulation	Click on the tab.
2	Type	Click on the down arrow in the column and select whether an input is to be used for alarm simulation or not.
	![Alarm input]	Input is to be used for alarm simulation.
	![unused]	Input is not to be used for alarm simulation.
3	Name	Place the cursor in the column and enter the name. The name can be freely selected.
4	Save	Entries saved.

Configure virtual inputs

Menu "Inputs and outputs" ➔ Tab "Virtual inputs"

Virtual inputs are inputs that are controlled via the browser interface. They offer the same functionality as the other inputs in the system.
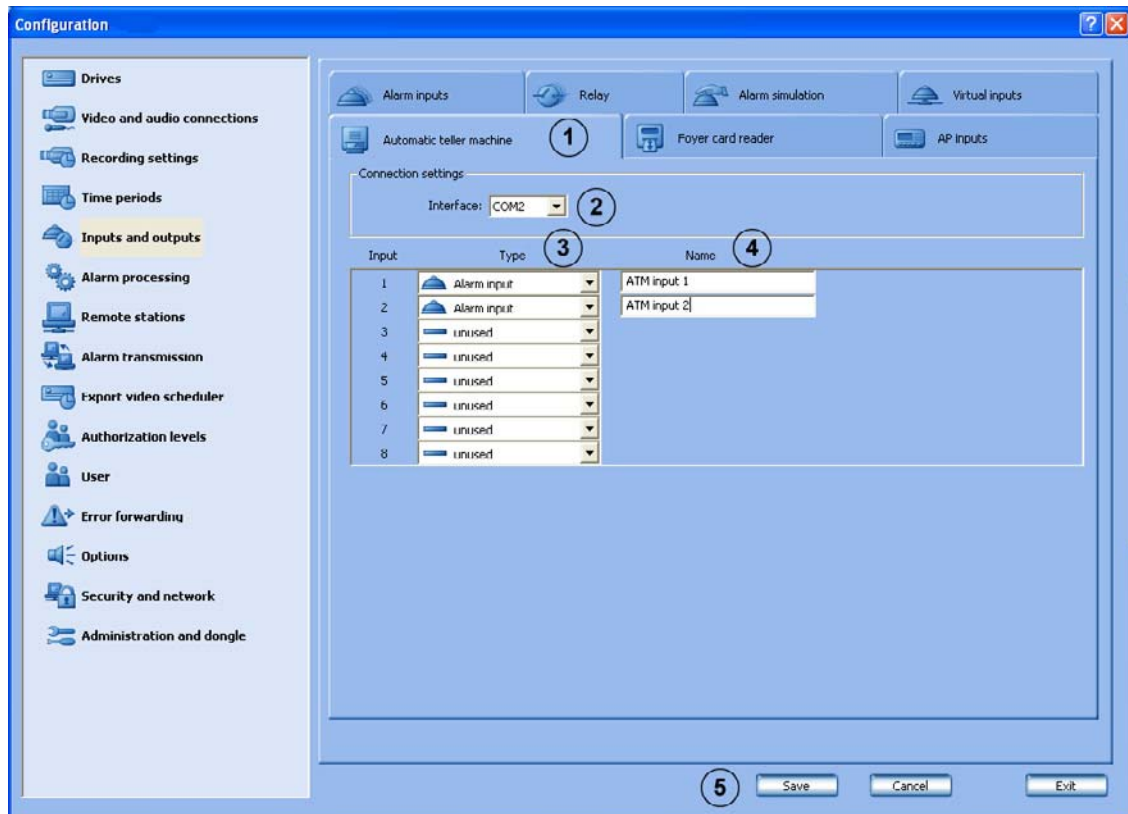
The virtual inputs can be used to execute jobs in the video system, for example for video export. There are 32 virtual inputs available.

1	Virtual inputs	Click on the tab.
2	Type	Click on the down arrow in the column and select whether a virtual input is to be configured or not.
	Alarm input	Input is to be used as virtual input.
	unused	Input is not to be used as virtual input.
3	Name	Place the cursor in the column and enter the name.
4	Change field designator	Click on the button. A dialog box opens. Edit the designation of the additional data as necessary.
5	Save	Entries saved.

Note: Login is not necessary for access to the virtual inputs interface.

Configure Automatic teller machines

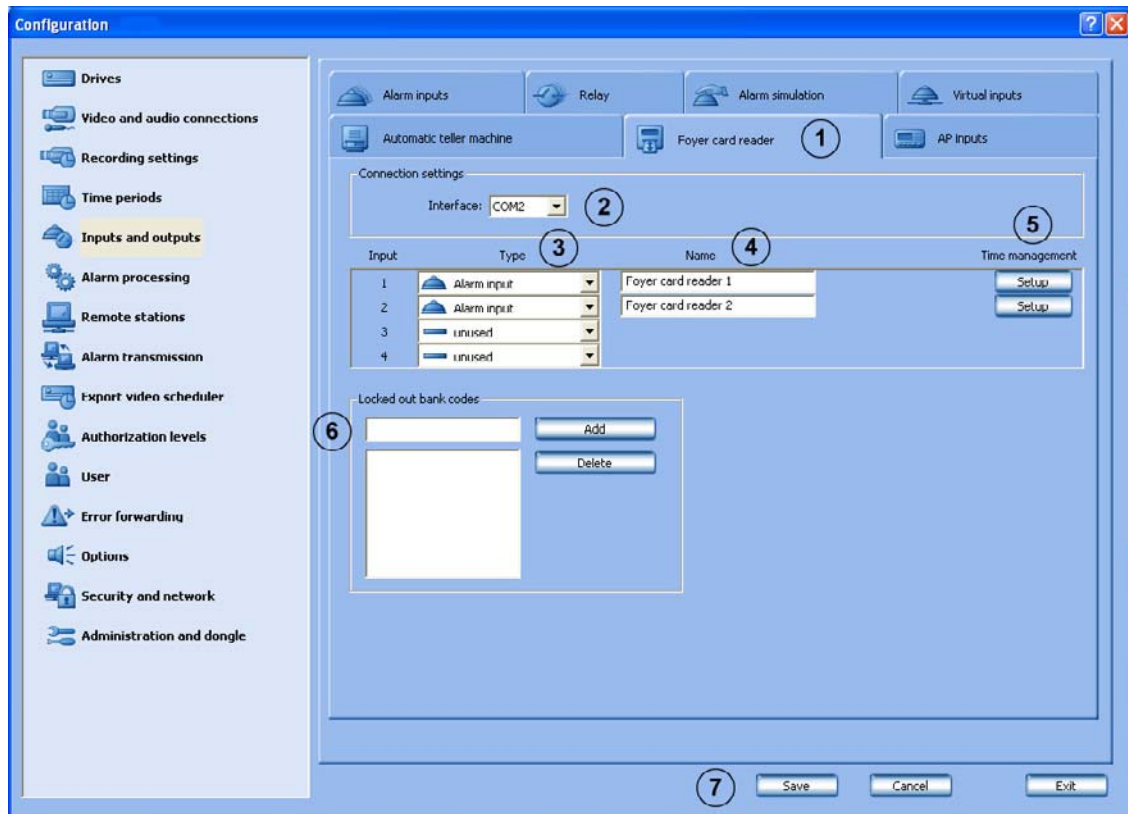Menu "Inputs and outputs" ➞ Tab "Automatic teller machine"

A maximum of 4 ATMs, each with 2 inputs, can be connected to one video system.

1	Automatic teller machine	Click on the tab.
2	Interface	Select the interface.
3	Type	Click on the down arrow in the column and select whether an input is to be configured or not.
	Alarm input	The input is assessed.
	unused	The input is not assessed.
		Assignment of inputs: Input 1 + 2 = ATM 1 Input 3 + 4 = ATM 2 Input 5 + 6 = ATM 3 Input 7 + 8 = ATM 4 Inputs 1, 3, 5, 7 normally activate the portrait camera and inputs 2, 4, 6, 8 the cash dispenser camera.
4	Name	Place the cursor in the column and enter the name. The name can be freely selected.
5	Save	Entries saved.

Configure foyer card reader

Menu "Inputs and outputs" → Tab "Foyer card reader" "Setup"

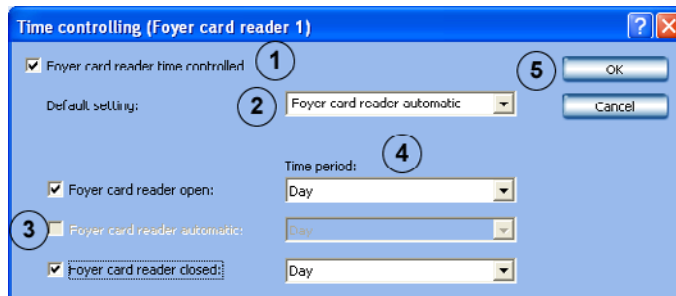A maximum of 4 foyer readers can be connected to one video system. Each foyer reader uses one input.

1	Foyer card reader	Click on the tab.
2	Interface	Select the interface.
3	Type	Click on the down arrow in the column and select whether an input is to be configured or not.
	▲ Alarm input ▼	A foyer reader is connected to the input.
	— unused ▼	No foyer reader is connected to the input.
4	Name	Place the cursor in the column and enter the name. The name can be freely selected.
5	Time management - setup	Click on the button if you want to enter a time scheduler. A dialog box opens to allow you to select the default setting for the foyer reader and the time period.

6	Locked out bank codes	You have the possibility of locking out specific bank codes, i.e. the EC cards with the lock characteristics entered here do not have access authorization. Access is denied by the foyer reader. The default setting of the foyer reader must be set to "Foyer reader automatic".
	Add	Enter the Bank code to be locked into the text field and click on the button. After the entry, the bank code is held in the list field.
		Note: When making an entry, the use of so-called wild cards (? or *) in any combination is allowed. Here, ? means: Any character, or none, may be placed in the exact position of the question mark. *: A sequence of any characters (one character and more) or no characters, can be placed at the exact position of the asterisk (exception: *on its own means that all bank codes are locked out).
	Delete	Select the entry in the list field and click on the button. The bank code is deleted from the list field.
7	Save	Entries saved.

Note: The number of the configured foyer card readers must agree with the number of foyer card readers connected.

Configure foyer card reader time control

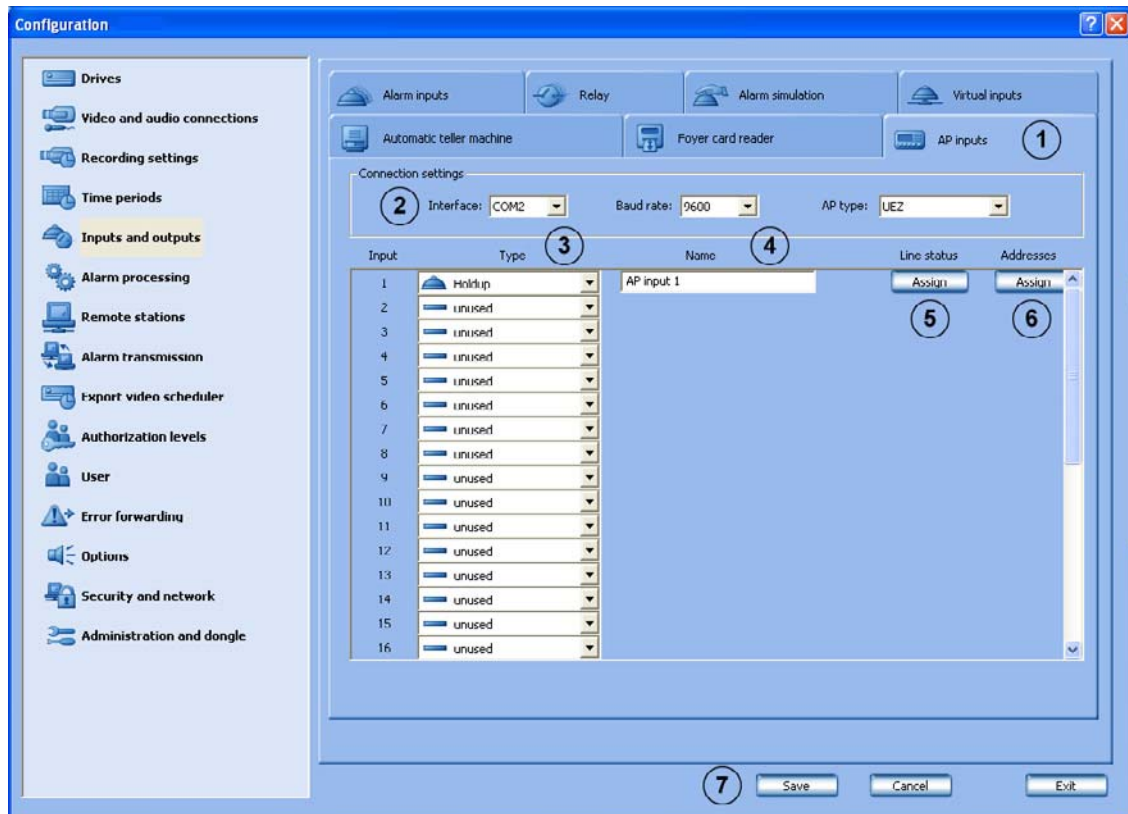Menu "Inputs and outputs" ➤ Tab "Foyer card reader" ➤ "Setup"

Edit the settings for the time scheduler.

1	Foyer card reader time controlled	Activate the check box.
2	Default setting	To do so, click on the down arrow in the list field and select which default setting the foyer reader should have.
3		In the previous point, you specified the default setting for the foyer reader. Activate as necessary one or more of the following characteristics when the default setting should be limited in time.
	Foyer card reader open:	Foyer always open.
	Foyer card reader automatic:	Access is only possible with an EC card or a credit card. Cards from specific banks can be locked out.
	Foyer card reader closed:	Foyer always closed.
4	Time period:	Select the time period within which the time limitation should apply (see also "Time periods" configuration).
5	OK	Entries saved.

Configure AP inputs

Menu "Inputs and outputs" ➞ Tab "AP inputs"

If an AP is connected serially, a maximum of 32 inputs that can cause triggering of an alarm in the system can be specified.

As standard, every input has line statuses assigned that can be modified in LSN alarm panels for the specific project. In addition, AP addresses can be assigned to each input.

1	AP inputs	Click on the tab.
2	Connection settings	
	Interface:	Select the interface.
	Baud rate:	Select the Baud rate.
	AP type:	Select the AP type.
3	Type	Click on the down arrow in the column and select the type of input.
	Holdup	The input type, e.g. holdup, is activated.
	unused	The input type is not activated.
		Note: Each input has specific types of line statuses assigned as standard. This assignment can be changed for LSN alarm panels.

4	Name	Place the cursor in the column and enter the name.
5	Line status Assign	 Click on the button. A dialog box opens to allow you to see and edit the standard assignment of the line statuses. **Note:** Only possible for LSN alarm panels.
6	Addresses Assign	 Click on the button. A dialog box opens in which you can assign specific AP addresses to the input.
7	Save	Entries saved.

Assign AP line statuses to inputs (not for Bosch D9000)

Menu "Inputs and Outputs" ➞ Tab "AP inputs" ➞ Section "Line statuses" ➞ "Assign"
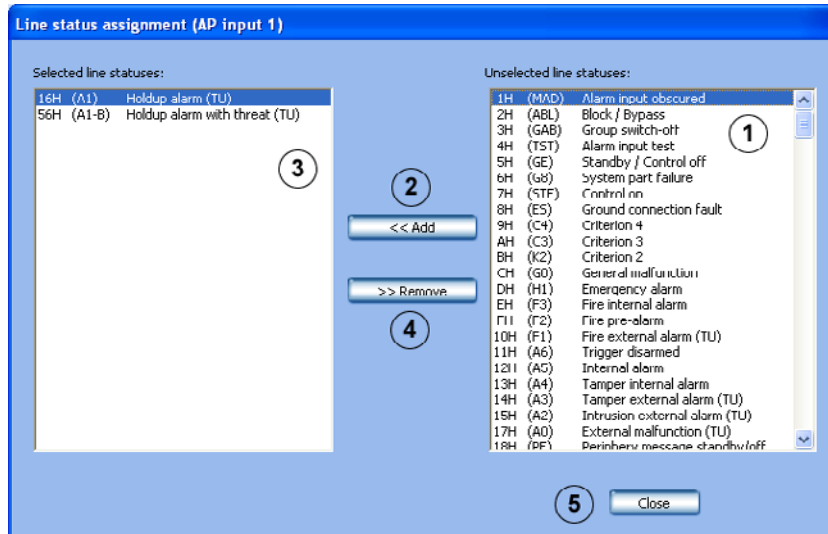
Assign line statuses of an AP to the inputs.

Adding line statuses:

1	Unselected line statuses:	Select the line status.
2	Add	Click on the button. The line statuses are added to the "Selected line statuses" list field.
5	Close	Finishes the procedure. Saves the entries.

Removing line statuses:

3	Selected line statuses:	Select the line status.
4	Remove	Click on the button. The line statuses are removed from the "Selected line statuses" list field.
5	Close	Finishes the procedure. Saves the entries.

Assign AP addresses to inputs (not for Bosch D9000)

Menu "Inputs and Outputs" ➡ Tab "AP inputs" ➡ Section "Addresses" ➡ "Assign"

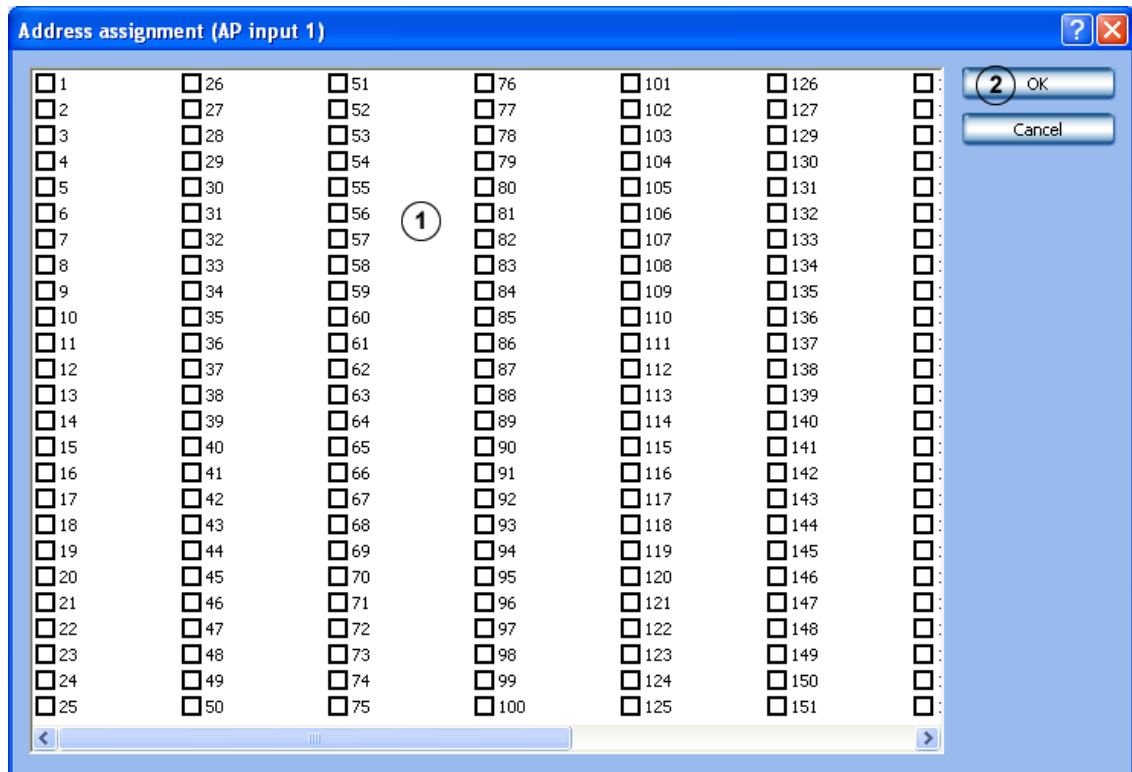Assign AP addresses for an AP (not Bosch D9000) to the inputs.

Add addresses:

1	From Group: Alarm input:	Enter the starting address in the input fields.
2	To Group: Alarm input:	Enter the final address in the input fields.
3	Add	Click on the button. The alarm jobs are added to the "Selected addresses" list field.
6	Close	Finishes the procedure. Saves the entries.

Remove addresses:

4	Selected addresses:	Select the addresses you wish remove.
5	Remove	Click on the button. The addresses are removed from the "Selected addresses" list field.
6	Close	Finishes the procedure. Saves the entries.

Assign AP addresses (Bosch D9000) to inputs

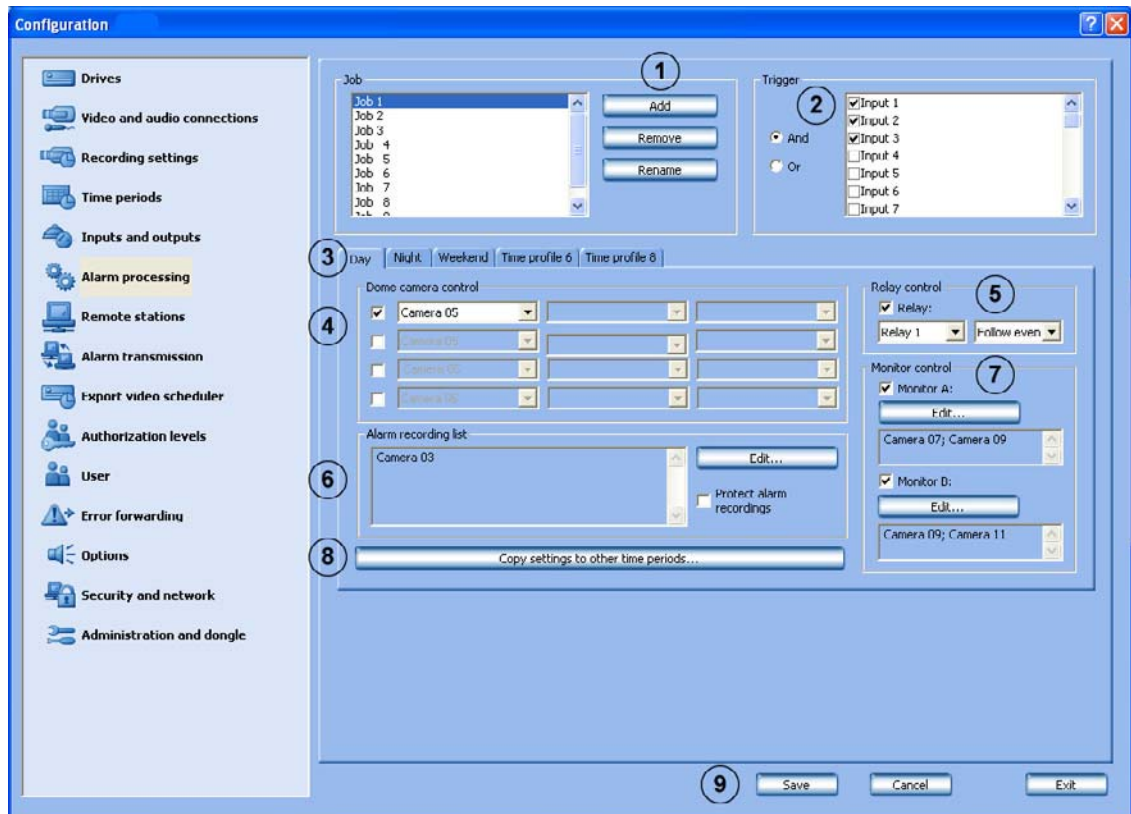Menu "Inputs and Outputs" ➡ Tab "AP inputs" ➡ Section "Addresses" ➡ "Assign"

Assign AP addresses for an AP of type Bosch D9000 to the inputs.

1	AP addresses	Activate the AP addresses check box to which you wish to assign the input.
2	OK	Entries saved.

5.6 Configure alarm processing

Menu "Alarm processing"

In this dialog box you can specify so-called "jobs" for every time profile. By "jobs", activities are meant that are started by inputs and cameras with motion detection.

The following activities are possible:

- Control of a maximum of four dome cameras
- Control of a relay output
- Control of camera sequences for a maximum of two video monitors
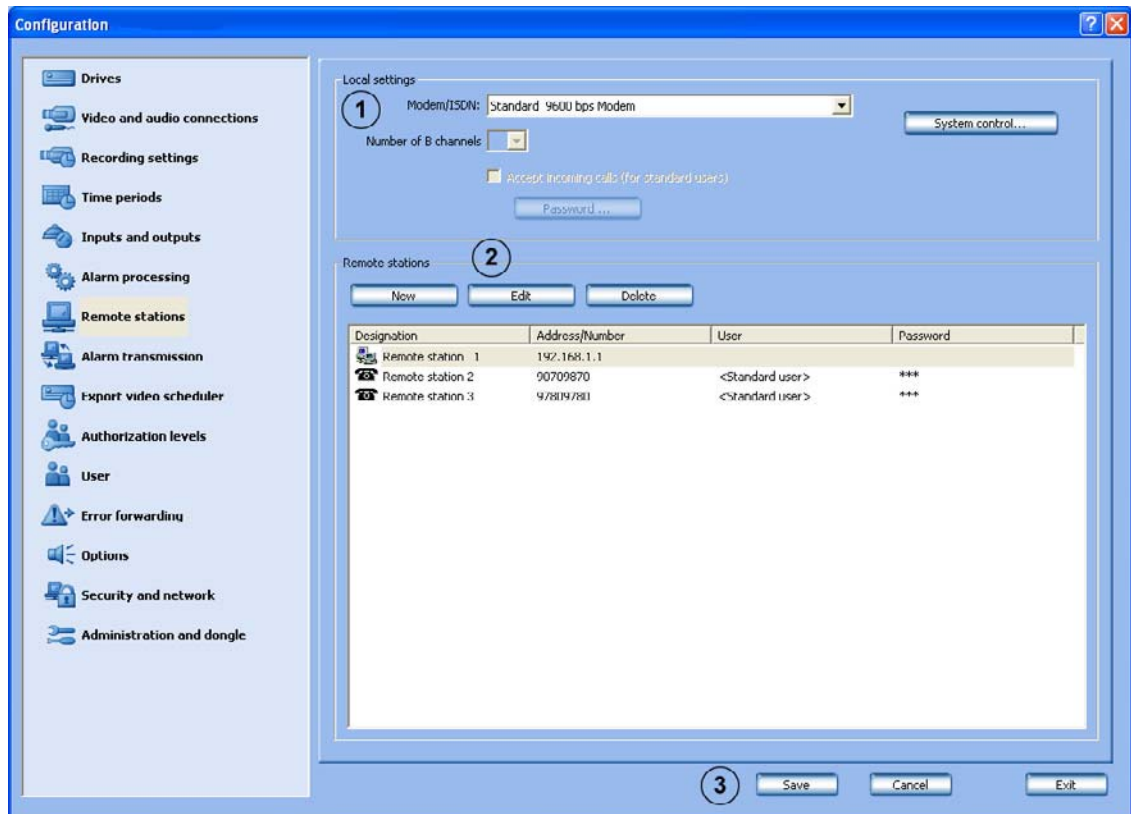- Start of an alarm recording

1	Job	
	Add	Adds a new job. The name of the new job is sequentially numbered and can be renamed.
	Remove	Removes a job.
	Rename	The name of the job can be changed.

2	Trigger	In the list field, select the inputs or cameras with motion detection whose triggering starts the job. Displayed as trigger are:
		• all types of inputs
		• cameras with motion detection
		• IP cameras and MPEG units
	And	All selected inputs and cameras with motion detection must trigger in order to start the job.
	Or	Only one input or one camera with motion detection must trigger in order to start the job.
3	Night I Day I Weekend ...	Select the time profile. The job is assigned to this time profile.
		Note: Only the time profile configured under "Time periods" is displayed.
		Note: With the "Copy settings to other time periods..." button, It is possible to quickly copy jobs to other time periods.
4	Dome camera control	A job can control a maximum of four dome cameras. Activate the check box of the line concerned. Then select the camera to be controlled in the list field and a saved position or a command.
		Note: The saved positions and commands must be configured under "Video and audio connections ➦ Add/Edit camera ➦ Dome settings".
5	Relay control	Specify the relays which are to be controlled.
	Relay	Activate the check box and select the relay and relay behavior.
		Note: Relay Start of event = at the start of an event the relay switches for one second End of event = at the end of an event the relay switches for one second Follow event = the relay switches at the beginning of the event, maintains this status during the event, and at the end of the event returns to its original status Follow alarm recording = the relay switches at the start of the event and returns to its original status only after the end of alarm recording (including the post-alarm time).

6	Alarm recording list	The inputs or cameras selected under "Trigger" trigger alarm recording for locally connected cameras.
	Edit...	Click on the button. A dialog box opens. Select the cameras for which alarm recording should take place.
	Protect alarm recordings	Activate the check box. The alarm recordings are protected against overwriting (including pre-alarm images).
		Note: Protected data is only automatically deleted when under "Recording settings", the "Delete old video" option is activated. It is also possible to manually delete in the user interface.
7	Monitor control	Specify the cameras and their display duration for each monitor.
	Monitor A/Monitor B	Activate the check box. The cameras are displayed on the monitor when the selected job triggers.
	Edit	Click on the button. A dialog box opens. Select the cameras.
8	Copy settings to other time periods...	Copies existing settings to other time periods. Select one or more job names and click on the button. A dialog box opens. Select the time period for which the jobs are also in use.
9	Save	Entries saved.

5.7 Configure remote stations

Menu "Remote stations"

In this dialog box, you determine the remote stations for your own workstation (local computer) so that you can connect to these remote stations later in the configuration procedure and/or allow dialling into your own workstation.

1	Local settings	Edit the following settings for your own workstation.
	Modem/ISDN:	Select the modem or ISDN card.
		Note: To be able to configure a modem connection, a RAS capable modem must be connected and a RAS service installed.
	Number of B channels	Enter the number of B channels.
	Accept incoming calls (for standard users)	Incoming calls may be accepted by standard users.
	Password	Enter a password that allows remote stations to be dialed into.
		Note: This password must be known in the remote station. It is to be entered there under "Authorization levels/ Connection password".

1	System control...	Under Windows XP, opens Network connections in the Control Panel.
		Note: Here, for example, you can configure your own IP address or make firewall settings.
		Note: If no RAS capable modem is connected or RAS service installed, a notes icon and a button with additional information appears.
2	Remote stations	New remote stations can be added here. Existing remote stations are displayed in the list field.
	New	Creates a new remote station. Click on "New" and make your entries in the dialog box that opens.
	Edit	Data on existing remote stations can be edited. Select the remote stations in the overview in the lower part of the dialog box and click on the button.
	Delete	Deletes the connection to a remote station. Select the remote stations in the overview in the lower part of the dialog box that you want to delete and click on the button.
3	Save	Click on "Save". If your entry contains errors, click on "Cancel" and start again.

5.8   Configure alarm transmission

Menu "Alarm transmission"
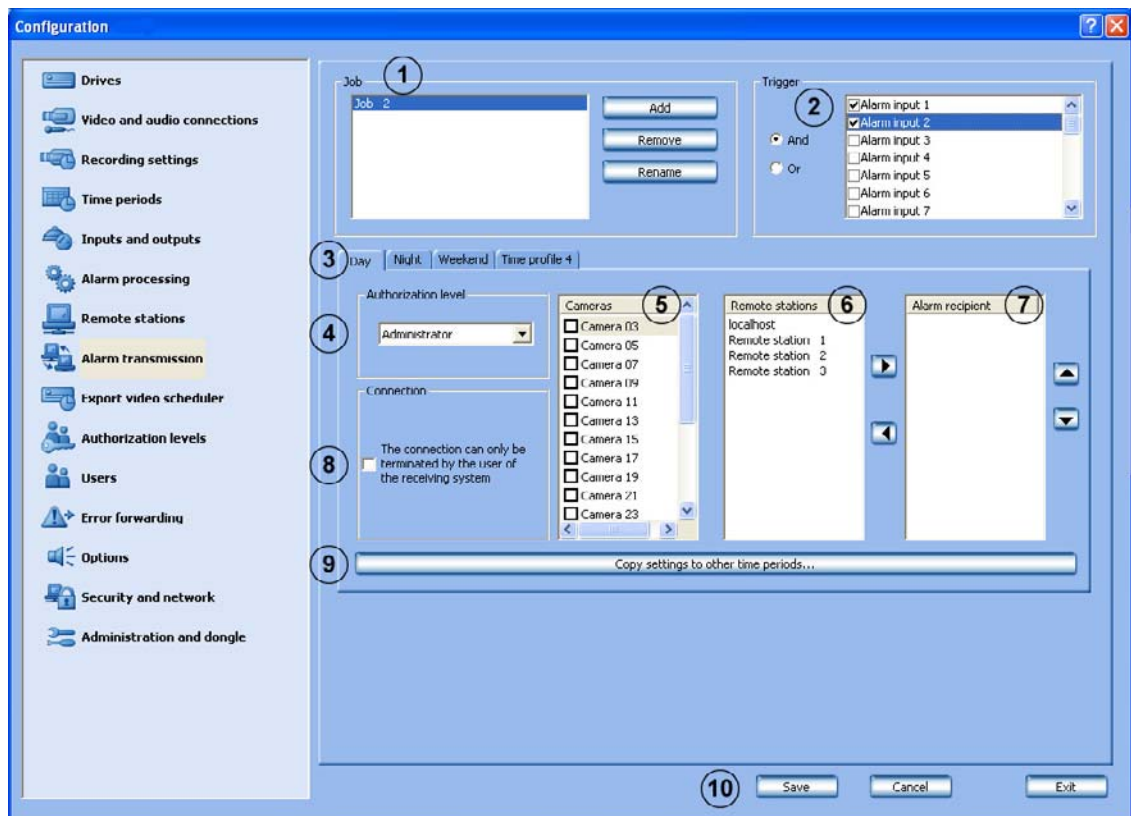
In this dialog box you can specify so-called "jobs" for alarm transmissions. By "jobs", activities are meant that are started by inputs and cameras with motion detection.

Should an alarm occur, a connection is established from the station generating the alarm to the configured remote station.

In the remote station live image, the tab ![alarm icon] blinks red. The remote station generating the alarm is displayed by clicking on the tab. Clicking on the remote station shows the cameras that have been triggered.
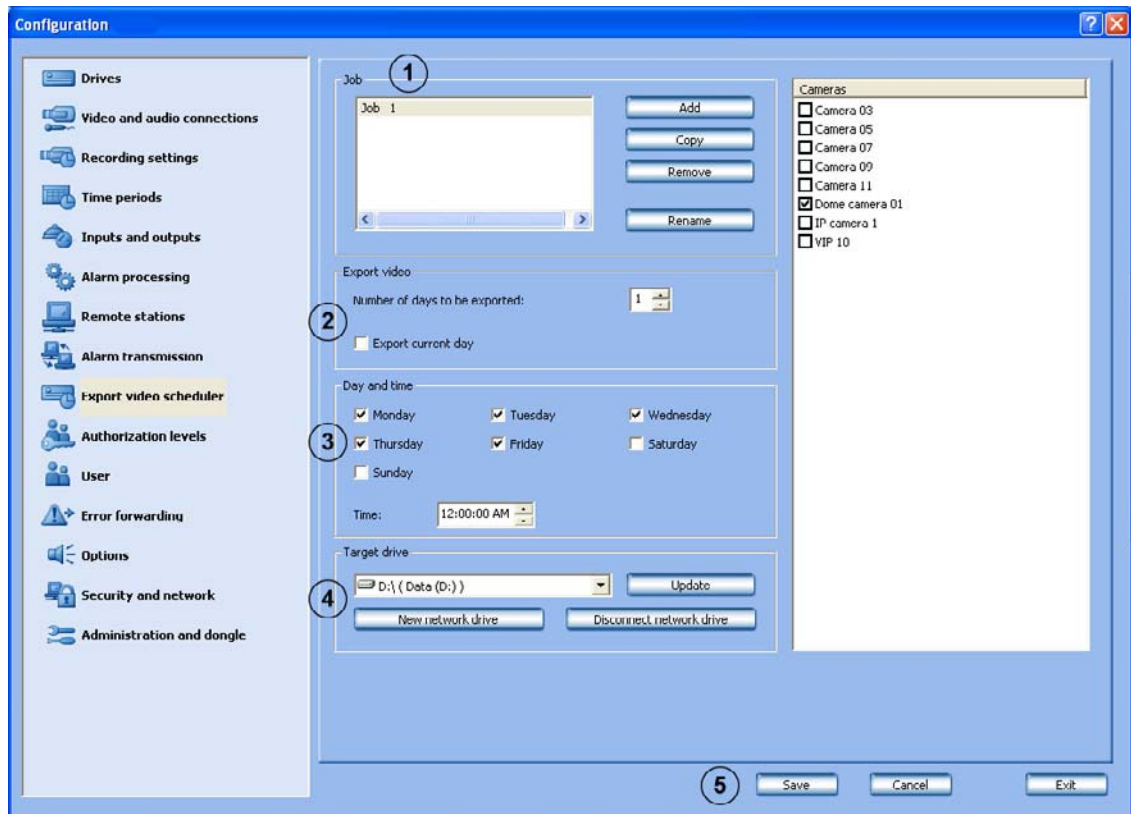
1	Job	
	Add	Adds a new job. The name of the new job is sequentially numbered and can be renamed.
	Remove	Removes a job.
	Rename	The name of the job can be changed.
2	Trigger	In the list field, select the inputs or cameras with motion detection whose triggering starts the job. Displayed as trigger are:
		• all types of inputs
		• cameras with motion detection
		• IP cameras and MPEG units
	And	All selected inputs and cameras with motion detection must trigger in order to start the job.
	Or	Only one input or one camera with motion detection must trigger in order to start the job.

3	Night I Day I Weekend ...	Select the time profile. The job is assigned to this time profile. **Note:** Only the time profile configured under "Time periods" is displayed.
4	Authorization level	Select the authorization level. **Note:** The name of the authorization level and its connection password must agree in both the local station and in the remote station causing the alarm transmission. The individual enabling of authorization levels, for example enabled cameras, relays, etc., may however be different. Enabling of the authorization level in the remote station takes place upon dialling into that remote station. Authorization for alarm transmission must be activated in the "Authorization levels" menu.
5	Cameras	Select the cameras whose images you want to transmit to the remote station.
6	Remote stations	The list field contains all remote stations known in the system. Select the remote stations and possibly one or more replacement remote stations to which alarm transmissions are to be made and click on ▶. The remote station is added to the "Alarm recipient" list field.
7	Alarm recipient	The list field contains the remote stations to which an alarm transmission is to be made. **Note:** The remote stations to be called are worked through by the system from top to bottom. This means that the remote station that should be dialed first must be at the top of the list. The replacement remote stations that should be dialled when no connection can be made to the first remote station, are listed underneath. The sequence is specified with the buttons ▲ and ▼.
8	The connection can only be terminated by the user of the receiving system.	Activate this check box when only the user of the receiving system can terminate the connection.
9	Copy settings to other time periods...	Copies existing settings to other time periods. Select a job name and click on the button. A dialog box opens. Select the time period for which the job is also in use.
10	Save	Entries saved.

Note: Multiple remote stations can be called up on one event. To do so, multiple jobs must be created.

5.9 Configure export video scheduler

Menu "Export video scheduler"

In this dialog box you can specify so-called "jobs" for the export video scheduler.

1	Job	
	Add	Adds a new job. The name of the new job is sequentially numbered and can be renamed.
	Copy	An existing job is copied.
	Remove	Removes a job.
	Rename	The name of the job can be changed.
2	Export video	
	Number of days to be exported (past days)	Enter the number of past days to be exported.
	Export current days	Activate this check box the current day should be exported.
		Note: Images from the current day are only exported up to the point in time at which the job is executed. Images from the current day that have not yet been saved are not exported.

3	Day and time	
	Monday......Sunday	Select the day on which export should be carried out.
	Time:	Enter the time for export.
4	Target drive	Select the target drive.
	Update	Updates the list of drives.
	New network drive	Adds a new network drive.
	Disconnect network drive	Removes a network drive
5	Save	Entries saved.

5.10   Create authorization levels
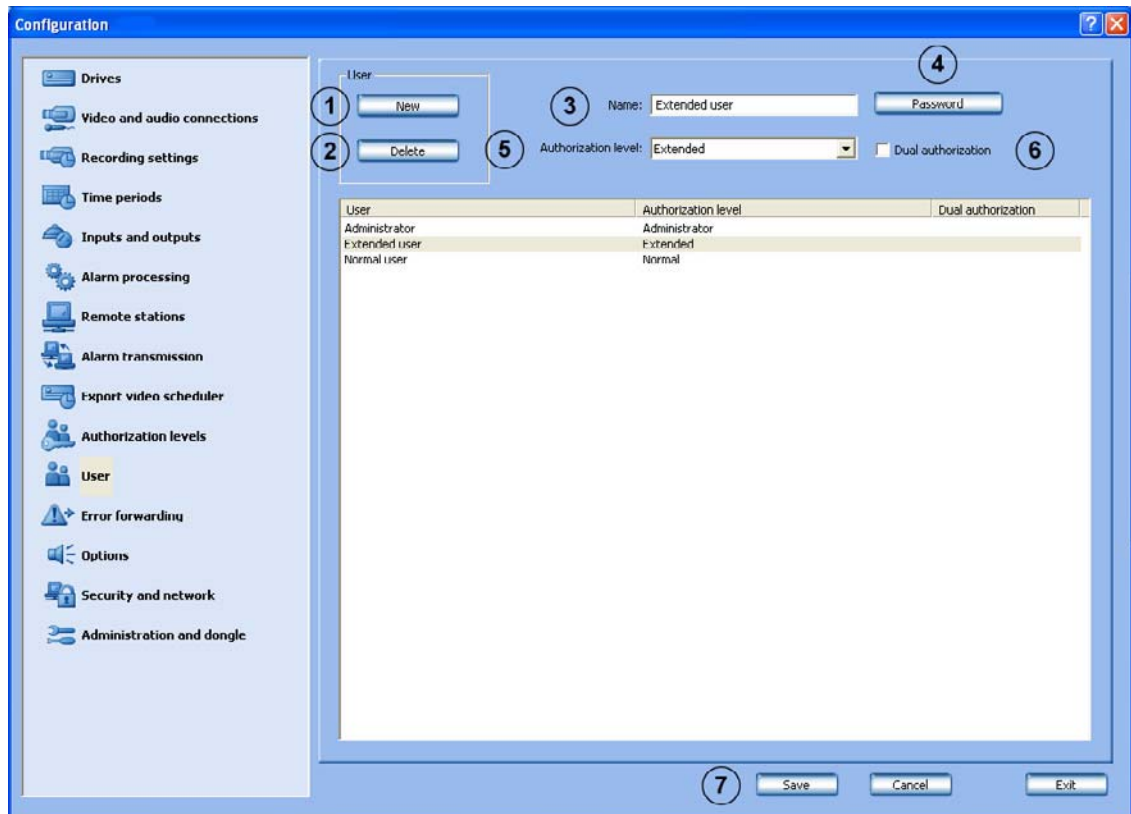
Menu "Authorization levels"
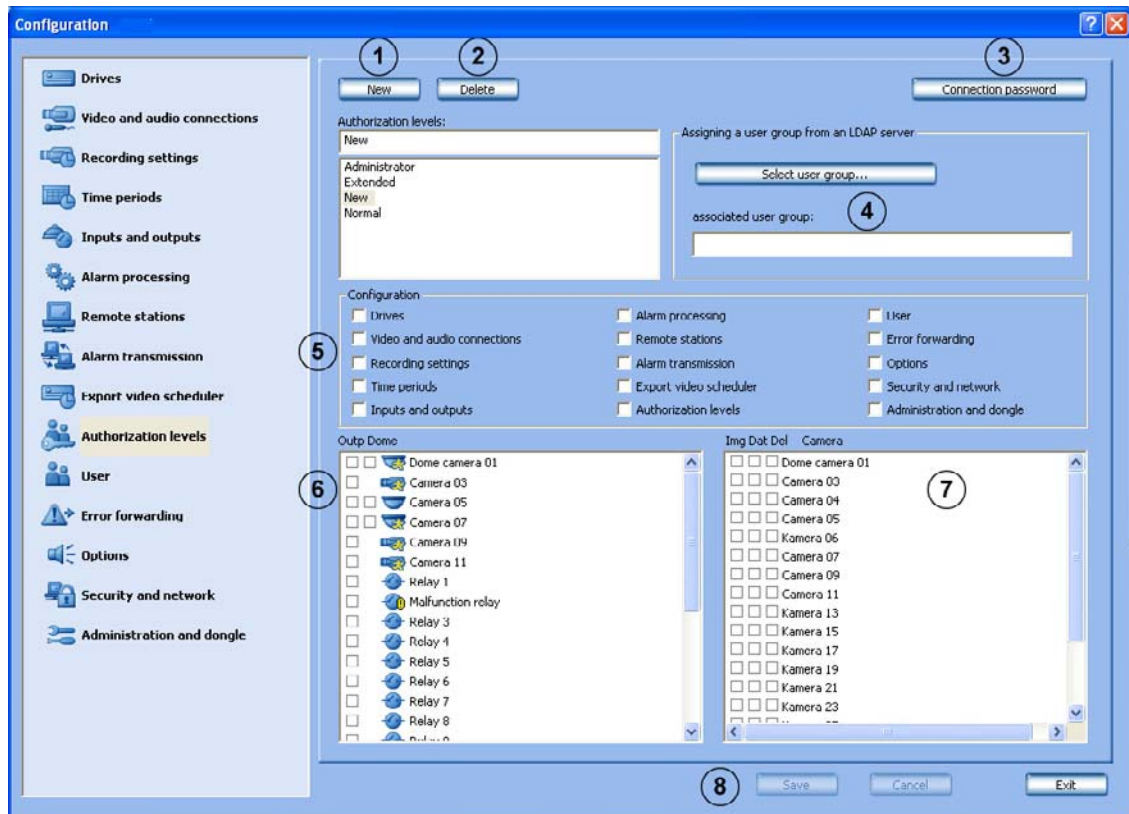
You can create different groups of authorizations in this menu if you have administrator rights. In these so-called authorization levels, you specify what the user can do in the system. The "Administrator" authorization level possesses all rights and is configured ex-factory. An "Extended user" may create a "Normal user".

1	New	Creates a new authorization level. Click on "New" and enter the name into the input field.
2	Delete	Deleted an existing authorization level. Select an authorization level in the list field and click on "Delete". The authorization level is deleted.
3	Connection password	A dialog box opens after the button is clicked. The connection password is entered into this dialog box. **Note:** To connect, the connection password must agree with that of the remote station.
4	Select user group...	A dialog box opens after the button is clicked. An LDAP server user group must be selected.
5	Configuration	Activate the check box for those functions that can be configured by a user with this authorization level.

6	Outp Dome	Activate the element (cameras, relays) check boxes that should be available to possessors of this authorization level. For dome cameras, a second column with check boxes is displayed. Here, the check boxes in front of the elements mean: **Outp** In a live mode, only those cameras and relays are shown to the user which have the check box activated. **Dome** In live mode, the user can only control those dome cameras with the check boxes activated. **Note:** Only video hardware that is already configured is offered by the video system. If new components are created, access to these by all access authorized users must be configured afterwards.
7	Img Dat Del	Select the access rights for the authorization level by activating the check box. Here, the activated check boxes in front of the elements mean: **Img (= image)** In playback mode, only those cameras are shown to the user that have the check box activated. **Dat (= data)** The saved images with additional data (e. g. date, time, ATM data) can be searched for, viewed, assessed, copied and printed out. **Del (= delete)** The saved images from the corresponding camera can be deleted.
8	Save	Entries saved.

5.11 Configure users

Menu "User"

To protect access to system components and data, operations can only be carried out by logged-in users. Every user is assigned an authorization level for work which has to be carried out by him (see also configuration of authorization levels).

in addition, the user login procedure can be protected by password. This password is only evaluated for local login procedures. For remote login procedures, the authorization level password is evaluated.

Note: Protect the user with the authorization level "Administrator" with a password. Ensure that this password is only known to those persons who are responsible for this video system.

| 1	New	Creates a new user. Click on "New" and enter a user name into the "Name" input field.
2	Delete	Deletes an existing user name. In the overview in the lower part of the dialog box, select the user name that you want to delete and click on "Delete".
3	Name	Name of the user. You can either enter a new user name here or change an existing one.

4	Password	Click on the button and enter a password for the user. Confirm your entries.
5	Authorization level	Click on the down arrow in the list field and select an authorization level for the user.
6	Dual authorization	Activate this function when the user may only login on the system together with another user.
7	Save	Click on "Save". If your entry contains errors, click on "Cancel" and start again.

Notes:

•   An unlimited number of users can be created.

•   The user password only applies to the login procedure of a local user.

•   The administrator authorization can only be issued by administrators.

5.12   Configure error forwarding

Menu "Error forwarding"
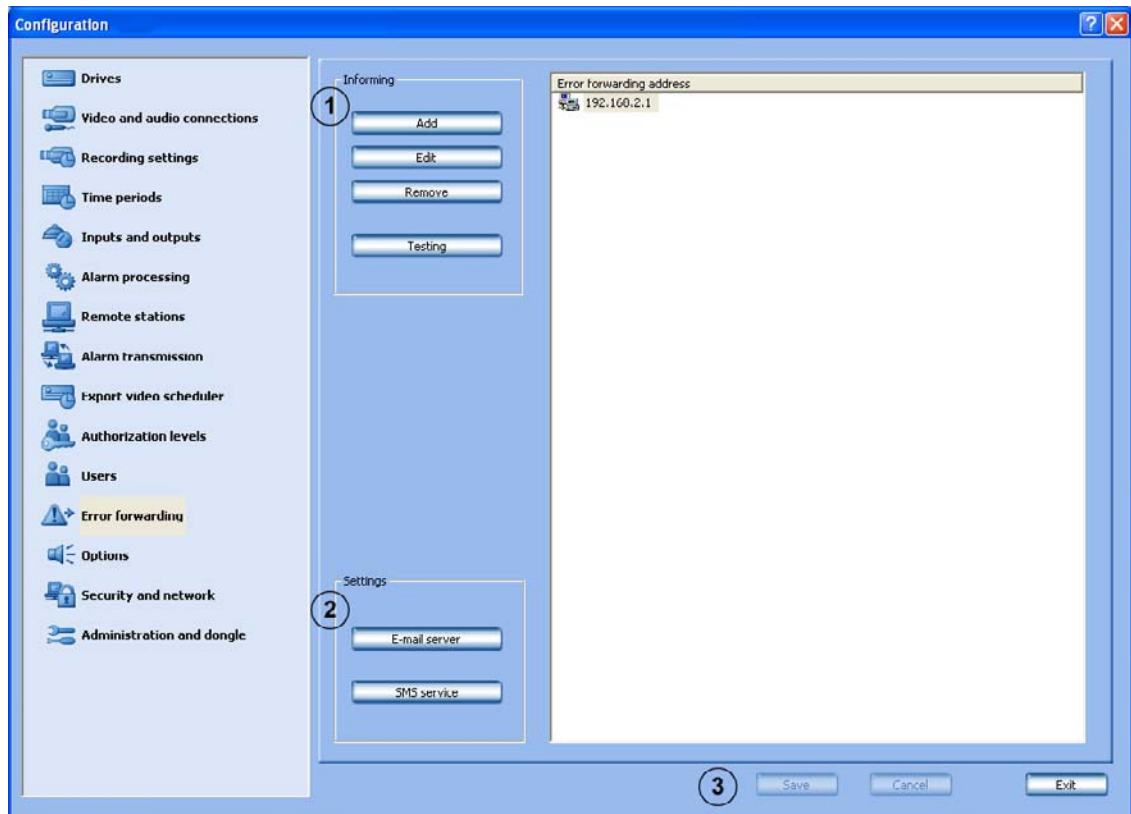
In case of malfunction, for example, external locations can be informed via network
(= net send), e-mail, SMS or batch file.

Error forwarding also applies to the malfunction relay.

1	Informing	Specify the location to be informed here.
	Add	Adds a new recipient who is to be informed in case of malfunction.
	Edit	Data on existing recipients can be edited. Select the recipient in the overview and click on the button.
	Remove	An existing recipient can be removed from the list of those to be informed. Select the recipient in the right-hand part of the dialog box in the overview and click on the button.
	Testing	Test the connection to the recipient. Select the recipient in the right-hand part of the dialog box in the overview and click on the button.

2	Settings	Edit the settings here for the e-mail server and the SMS service.
	E-mail server	The e-mail server setup opens after the button is clicked. In setup, enter data on the sender name, e-mail address, user name, etc.
	SMS service	The SMS service configuration opens after the button is clicked. In the SMS configuration, enter data on the dialing parameters and modems, transmit options, etc.
3	Save	Click on "Save". If your entry contains errors, click on "Cancel" and start again.

5.13   Configure options

Menu "Options"
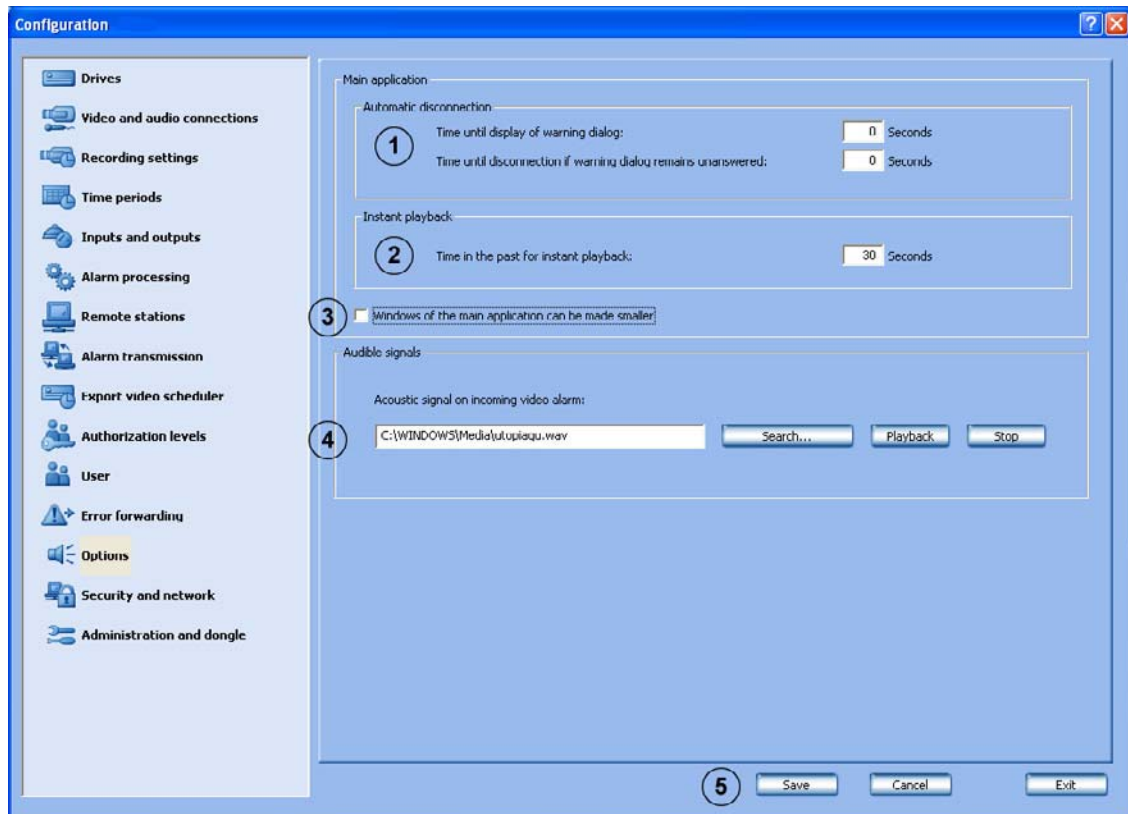
In this dialog box you can edit optional settings, for example automatic connection, instant playback and acoustic signals.

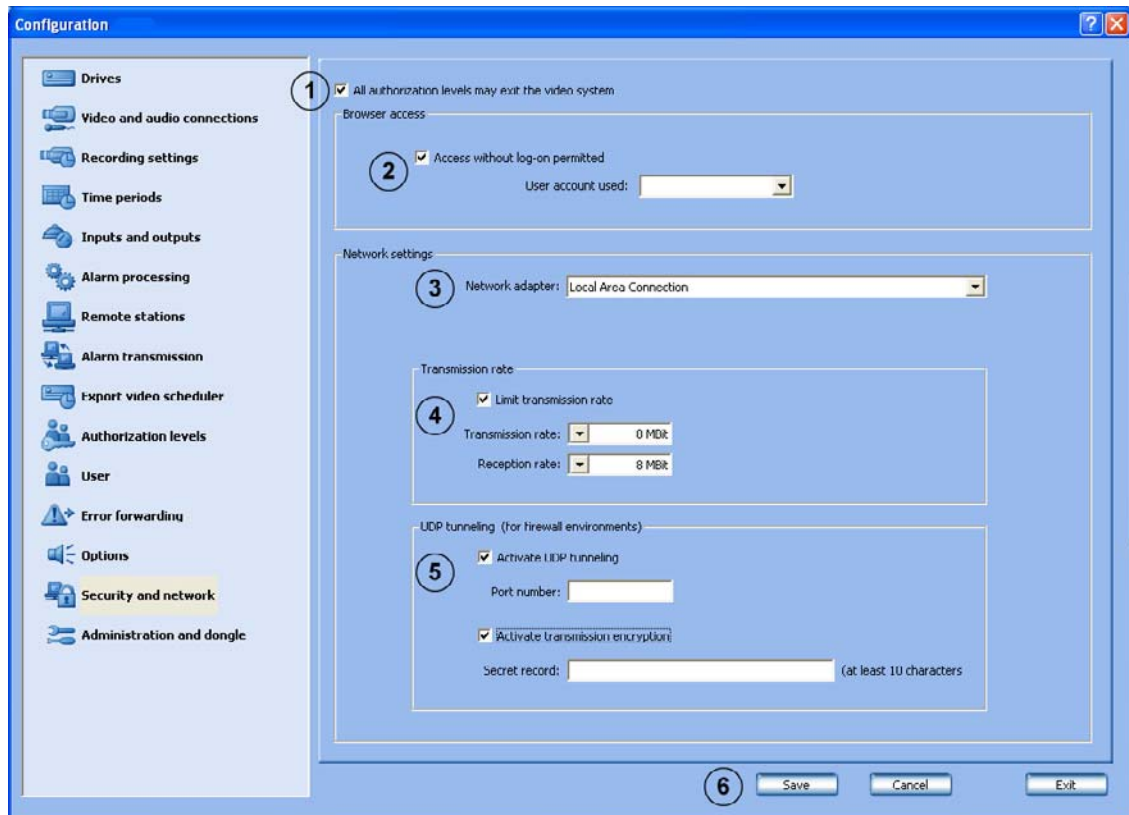| 1	Automatic disconnection	This function serves to disconnect the local live image and all ISDN and network connections (previously independently connected by the video system) automatically after a specific time. To do so, make your entries in both of the following fields:
	Time until display of warning dialog:	Enter the time after which a warning dialog is to be displayed. **Note:** The warning dialog allows you not to break the connection or to break it immediately.
	Time until disconnection if warning dialog remains unanswered:	Enter the time after which disconnection is to take place if the warning dialog remains unanswered (a value of 0 means that no disconnection will take place).

2	Instant playback	In instant playback, the images which have been saved in the selected camera are played back with a time delay to the live images. This means you will see the live image of the camera and the image of this camera from about 30 seconds ago. Playback is in real time.
	Time in the past for instant playback:	Enter the time here. A time between 10 seconds and 300 seconds can be selected.
3	Windows of the main application can be made smaller	Here you can select whether the user interface can be shrunk or not. Changes are first saved after a reboot of DiBos.
4	Audible signals	You can here assign an audio signal (wav file) to incoming video alarms.
	Acoustic signal on incoming video alarm:	Enter the path and the file name or click on "Search".
	Search	Click on "Search" and in the window that opens, select the wav file you want to assign to the incoming video alarms. Click on "Open" to save the file.
	Playback	If you want to listen to the file to test it, click on "Playback".
	Stop	Clicking on "Stop" stops playing the file back.
5	Save	Click on "Save". If your entry contains errors, click on "Cancel" and start again.

5.14   Configure browser access and network settings

Menu "Security and network"

In this dialog box you can specify security settings such as browser access and network connection encryption.

1	All authorization levels may exit the video system	Activate this check box when all users should receive authorization to exit the video system.
2	Browser access	For browser access over the network.
	Access without log-on permitted	Activate this check box when access to the system via a browser (without log-on) is to be permitted.
	User account used:	Select the user in the list field whose authorization is to be used for the access.
3	Network settings	
	Network adapter:	Click on the down arrow (on left) and select the network adapter.

4	Transmission rate	
	Limit transmission rate	Activate this check box when you want to limit the transmission rate.
	Transmission rate:	Select the transmission rate for DiBos-DiBos connections and browser.
	Reception rate:	Select the reception rate.
5	UDP tunneling (for firewall environments)	The integrated firewall embedded in the Windows XP operating system is deactivated as standard.
	Activate UDP tunneling	Activate this check box when you want to permit a DiBos-DiBos network connection via a fixed port.
		Note: This port must be enabled in the network. The video system Windows firewall must be deactivated.
	Port number:	Enter the port number.
	Activate transmission encryption	Activate this check box when data transmission is to be encrypted.
	Secret record:	Enter a password of at least 10 digits.
6	Save	Entries saved.

The master disk already contains the preinstalled Web application for access via the browser. The Web application is activated as standard. If access via http is to be prevented, the World Wide Web Publishing Service must be deactivated.

Activate/deactivate the Web application:

Administrator rights are necessary for the following steps.

1. Log on to the operating system as Administrator.
2. Select "Start/Control Panel".
3. Double click on the "Administration" icon.
4. Double click the "Internet Information Services" icon.
5. Open the tree structure under "Internet Information Services" until you see the entry "Default Web Site".
6. Select the entry "Default Web Site".
7. Start or stop the service. To do so, click on the corresponding buttons.

5.15 Administration and dongle

Menu "Administration and dongle"
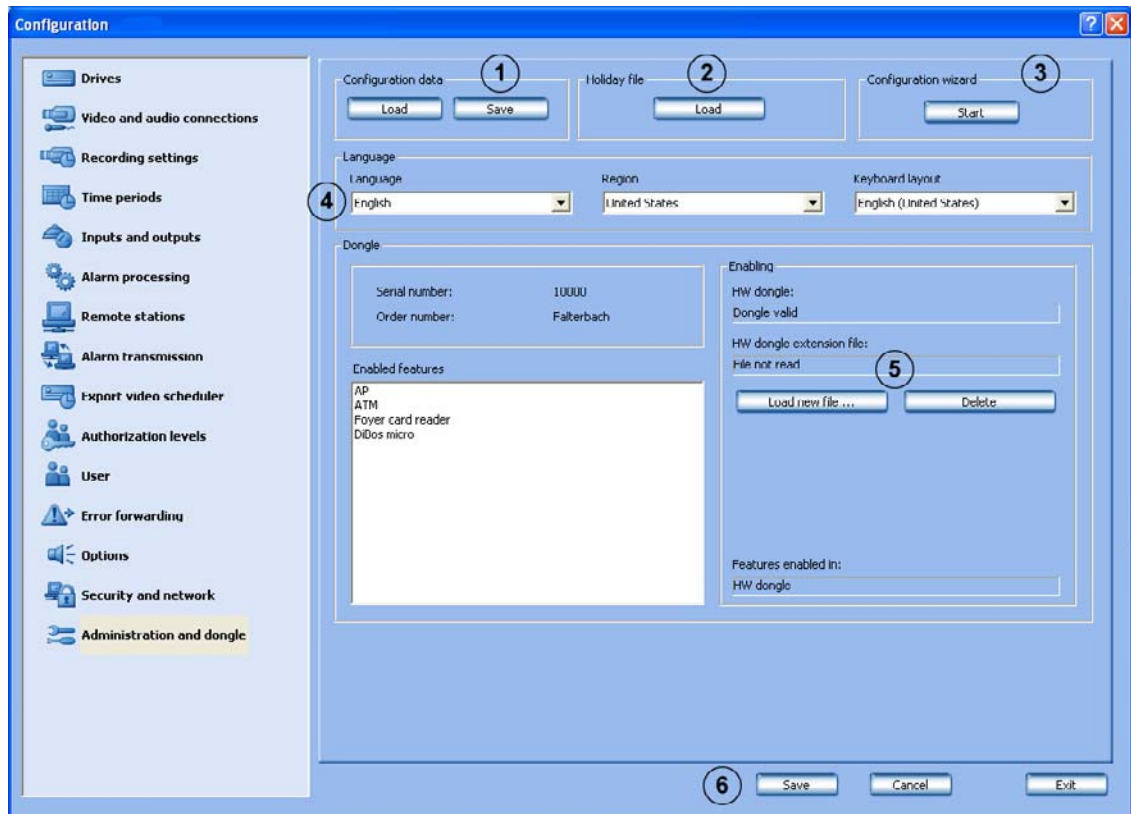
In this dialog box you can do the following:

*   Load and save the configuration data
*   Load the holiday file
*   Start the configuration wizard
*   Set the language
*   Load and delete the HW dongle extension file
*   Overview of enabled features
*   Serial and order number
*   Enable status of the HW dongle and the HW dongle extension file

1	Configuration data	
	Load	A new configuration can be loaded. The new configuration overwrites the previous one.
	Save	The configuration can be saved on a network drive or a data medium.
		Note: For security reasons, it is advisable to always save the configuration on an external data medium.

2	Holiday file	Here you have the possibility of modifying the holidays for the time program according to the country. The modification must be made in the file Holidays.xml.
	Load	Click on the button and answer the warning note with "OK" when the previous file is to be overwritten or with "Cancel" if you want to modify the file.
3	Configuration wizard	
	Start	Click on the button to start the configuration wizard.
		Note: A configuration that already exists is not overwritten when the wizard starts. All images are retained.
4	Language	Click on the down arrow and select the language for the operating system and the video system.
		Note: If the language is changed, the system must be rebooted.
	Region	Click on the down arrow and make your selection.
	Keyboard layout	Click on the down arrow and select the layout of the keyboard connected.
5	Enabling	The hardware dongle extension file contains features purchased later. The file must be loaded to activate these features. The hardware dongle extension file refers to a specific dongle.
		Note: The dongle number and order number must be given if an extension is made later.
	Load new file ...	Click on the button to load a new dongle extension file. Input the data, for example from a diskette. The existing file will be overwritten.
		Note: Keep a copy of the dongle extension file to be able to load this again after a restore (with Recovery CD).
	Delete	Click on the button to delete the existing dongle extension file.
6	Save	Entries saved.

6 XP Administration

6.1 Change from the video system to the XP Administrator level

To be carried out by authorized personnel only!

Proceed as follows to change from the video system to the XP Administrator level.

1. Terminate the operating procedure in the video system. To do so, select the command "System → Exit system" in the menu bar.

2. In Windows® XP select the "Start → Log Off" command. The Windows log-off dialog appears.

3. Press the left shift key and click on the "Log off" button. Here, hold the left key down until the Windows logon screen appears.

4. Log on with the user name "Administrator".

   For security reasons, you must ask the "Product Service Video" of the video system manufacturer for the password. Then, for security reasons, change this password.

6.2 Log on on as Windows® XP user

Proceed as follows to log onto Windows® XP as a video system user.

1. In Windows® XP select the "Start → Log Off" command. The Windows log-off dialog appears.

2. The system automatically logs itself on as a DiBos user.

Attention:
An automatic start, e.g. after a power failure, can only be done as a preset user.

7 Connections

7.1 Connection to an Ethernet/Token Ring network

To be carried out by authorized personnel only!

As well as the Ethernet on-board connection, a Token Ring card is also available.

Note:
Only the card type Madge Token Ring Smart 16/4 PCI Ring node may be used.

Installation and configuration of the Token Ring card.

1. Switch off the computer and pull out the mains power connector.

2. Fit the network card in the appropriate computer slot.

3. Switch on the computer. The network card is automatically recognized and installed by the system.

Integration into a customer network with dynamic assignment of IP addresses (for Ethernet and Token Ring)

In the delivery condition, DHCP is activated. If, however, you have moved to a fixed IP address and want to change back to automatic assignment of the IP addresses (DHCP), then activate DHCP as follows.

1. Double-click on "Local Area Connection → General".

2. On the following dialog box, select the "Internet Protocol (TCP/IP)" option and click the "Properties" button.

3. Activate the "Obtain IP address automatically" option button and confirm by clicking "OK".

Integration into a customer network with static assignment of IP addresses (for Ethernet and Token Ring)

Request the IP and Subnet address from the system administrator and proceed as follows:

1. Double-click on "Local Area Connection → Properties".

2. On the following dialog box, select the "Internet Protocol (TCP/IP)" option and click the "Properties" button.

3. Activate the "Use the following IP addresses" option button and enter the IP and subnet mask: "IP Address: x. y . z . computer number"
   x: like other computers
   y: like other computers
   z: last two digits of the dongle number
   Computer number: consecutive number of the computer "Subnet mask:
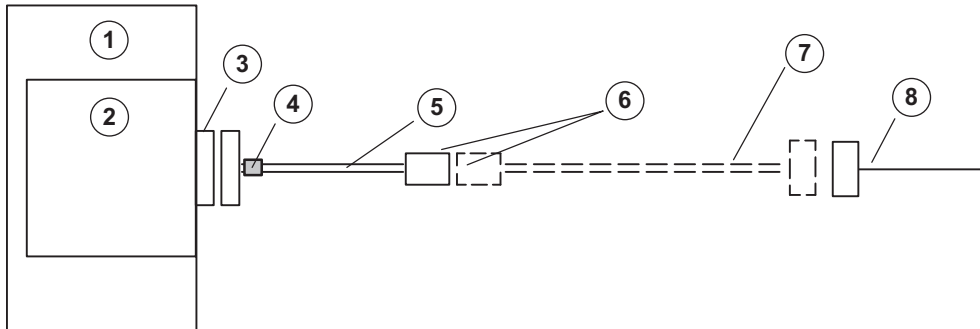   e. g. 255 . 255 . 0 . 0" (remains the same). Confirm with "OK".

7.2   Connection to ISDN controller

To be carried out by authorized personnel only!.

The ISDN connection is made via the included adapter cable (with Western plug) on the S_0 interface of the computer.

Note:
Only the card type Fritz! Card PCI V2.0 may be used.

1	Video system	**5**	Included adapter cable
2	ISDN contr. (Transmitter or receiver)	**6**	Western plug
3	ISDN adapter card socket	**7**	Only necessary for TAE connector boxes (not included in delivery)
4	Ferrite core	**8**	ISDN connection

For installation of the ISDN card, the computer must be next to the ISDN connection and the card must be fitted in the computer.

The prerequisite for data transmission is that the connection supports the EURO ISDN (DSS1) protocol. S_0 connections in PBXs may first have to be enabled in the PBX. The data service in the incoming and outgoing direction must also be enabled. The video system is delivered for EURO ISDN ex-factory.

ISDN connector TAE 8 on S_0 interface of the video system (9–pole Sub–D socket)

Sub–D socket	TAE 8 plug	Function
1–		
2 – SR1–	- 4 (b1)	Transmit wire
3 – SR2+	- 3 (a1)	Transmit wire
4 – SX1–	- 6 (a2)	Receive wire
5 – SX2–	- 5 (b2)	Receive wire

ISDN connection box IAE (RJ 45) on S_0 interface of video system (9–pole Sub–D socket)

Sub–D socket	IAE 8 plug	Function
1–		
2 – SR1–	- 5 (b1)	Transmit wire
3 – SR2+	- 4 (a1)	Transmit wire
4 – SX1–	- 3 (a2)	Receive wire
5 – SX2–	- 6 (b2)	Receive wire

7.3 Connection to VSCom 200 H (interface expansion)

To be carried out by authorized personnel only!.

Note:
Only the card type VSCom 200 H PCI may be used.

When retrofitting the interface expansion card, the following installation must be carried out.

1. Switch off the computer and fit the interface expansion card in the appropriate computer slot.
2. Reboot the computer.
3. Log on as Administrator.
4. The system automatically recognizes the interface expansion card.

7.4 Connecting external hard disks

a SCSI controller must be installed in order to connect the external hard disk housing. the type and number of hard disks that can be connected can be found in the price list.

External hard disks must be switched on before booting the PC.

Note:
Only the card types Adaptec SCSI Card 29160 or LSI Logic 160 MB Ultra Wide 68 PIN HD SYM 21040 may be used as SCSI controller.

7.5 Connecting a malfunction relay

The malfunction relay is connected to a relay output. It must be activated in the configuration under "Inputs and outputs/Relay".

The following events are signaled by the malfunction relay.

- The camera does not deliver a video signal
- The logbook cannot be created or written
- The images could not be recorded by the database server
- Database could not be launched
- Hard disk failure: Drive X deactivated, drive X not deactivated
- The hard disk is full (protected data)
- Internal database error
- Device could not be started
- Grabber card not working
- Export video scheduler error

7.6   Connection to ATM via interface processor (serial)

A maximum of four customer-operated ATMs or three customer-operated ATMs and one access control system can be connected to the video system.

The following ATM connection variations are possible:

- **Variant 1:**

  Problem description:
  The customer-operated ATMs are not far from the video system. Video system and interface processor as well as interface processor and ATM can be connected together in such a way that each distance is less than 15 m.
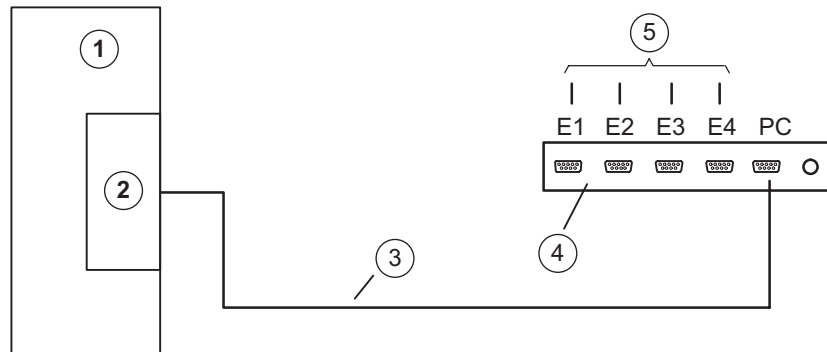
  Solution:
  Connection of each ATM is made directly at the interface processor and is ATM-specific. The distance between the video system and the interface processor as well as the distance between interface processor and ATM is a maximum of 15 m.

  Connection principle:
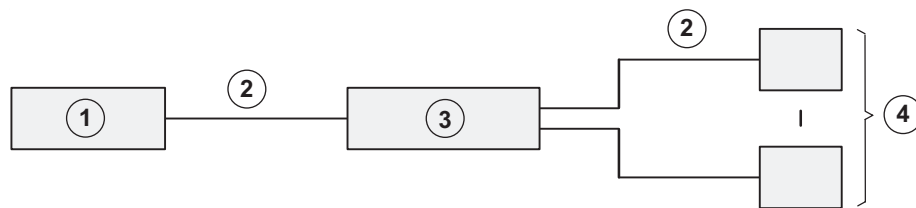
1	Video system	3	Interface processor
2	max. 15 m	4	ATM1 − ATM4

  Connection details:

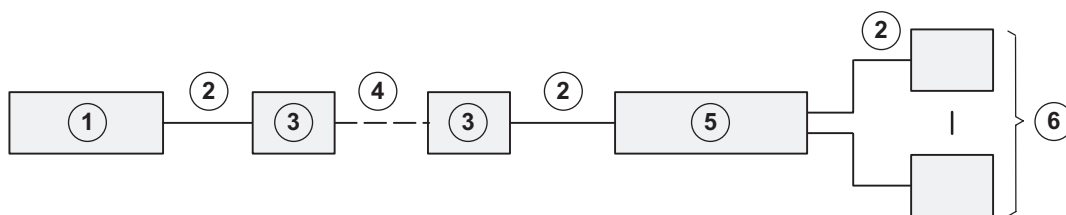 | 1 | Video system | 4 | Interface processor |
  |---|--------------|---|---------------------|
  | 2 | COM x | | |
  | 3 | Connection cable, 9–pole | 5 | ATM1 − ATM4 |

- **Variant 2:**

  Problem description:
  The customer-operated ATMs are further away from the video system. Video system and interface processor as well as interface processor and ATM can not be connected together in such a way that each distance is less than 15 m. The ATMs are, however, close enough together to allow them all to be connected to the interface processor in such a way that the distance between the interface processor and each ATM is less than 15 m.
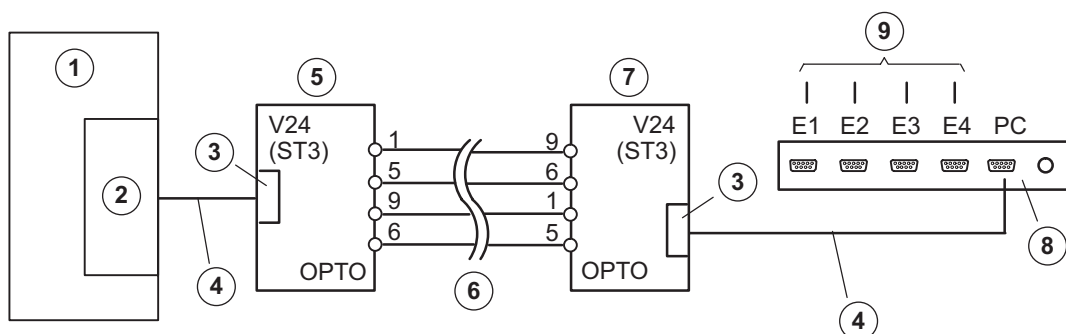
  Solution:
  Connection of each ATM is made directly at the interface processor and is ATM-specific. To increase the range, two OVS are necessary between the video system and the interface processor.

  Connection principle:

1	Video system	4	max. 1000 m
2	max. 15 m	5	Interface processor
3	OVS	6	ATM1 − ATM4

Connection details:

1	Video system	6	max. 1000 m
2	COM x	7	OVS 2 BR1: Position 2/3 BR2: Position 2/3 ST3: Pin 2 = receive line, Pin 3 = transmit line
3	9-pole	8	Interface processor
4	Connection cable 9–pole, part no. 4.998.079.686 (1:1 connection)	9	to ATM1 − ATM4
5	OVS 1 BR1: Position 1/2 BR2: Position 1/2 ST3: Pin 2 = transmit line, Pin 3 = receive line		

Note: By re-plugging the bridges BR1 and BR2 in the OVS, it is possible to swap over the transmit and receive lines.

- **Variant 3:**

  Problem description: The customer-operated ATMs are further away from the video system. Video system and interface processor as well as interface processor and ATM can not be connected together in such a way that each distance is less than 15 m. The ATMs are not close enough together to allow them all to be connected to the interface processor in such a way that the distance between the interface processor and each ATM is less than 15 m.
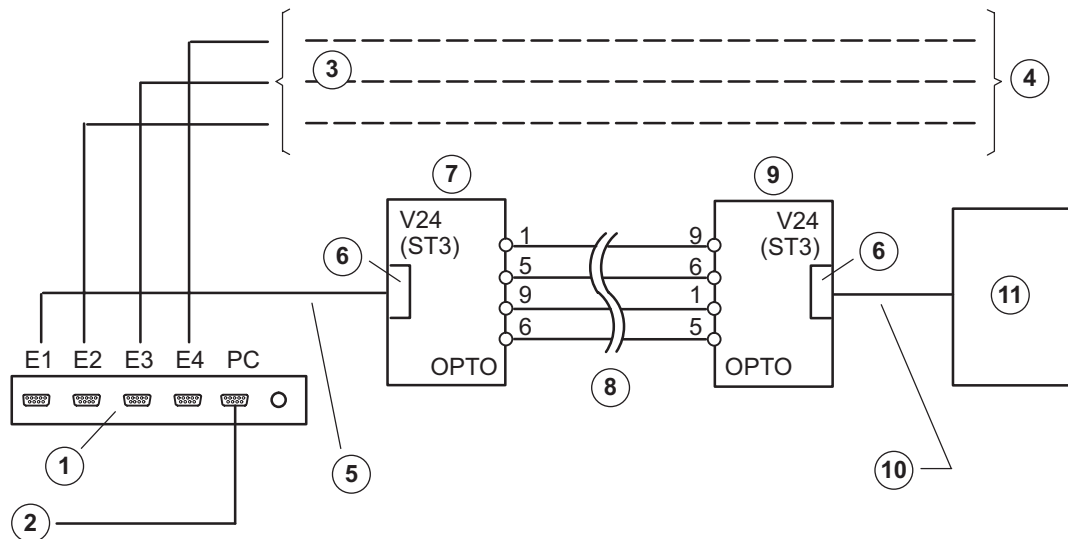
  Solution:

  The interface processor is connected directly to the video system. To increase the range, two OVS are necessary between the interface processor and the ATM.

  Connection principle:
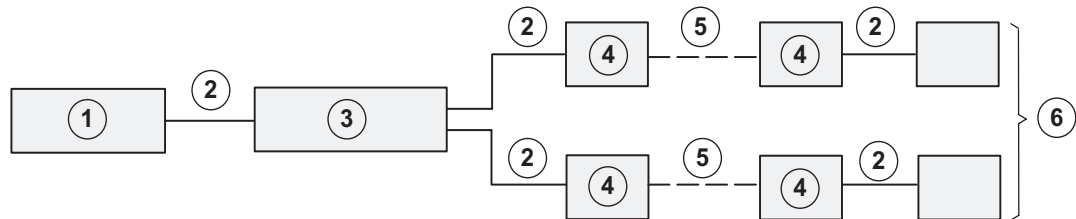
1	Video system	4	OVS
2	max. 15 m	5	max. 1000 m
3	Interface processor	6	ATM1–ATM4

  Connection details:

1	Interface processor	7	OVS 1 BR1: Position 1/2 BR2: Position 1/2 ST3: Pin 2 = transmit line, Pin 3 = receive line
2	Connection cable to video system (COM x)	8	Range max. 1000 m
3	as ATM1	9	OVS 2 (bridge setting depending on ATM)
4	to ATM2 − ATM4	10	ATM-specific cable connection or adapter

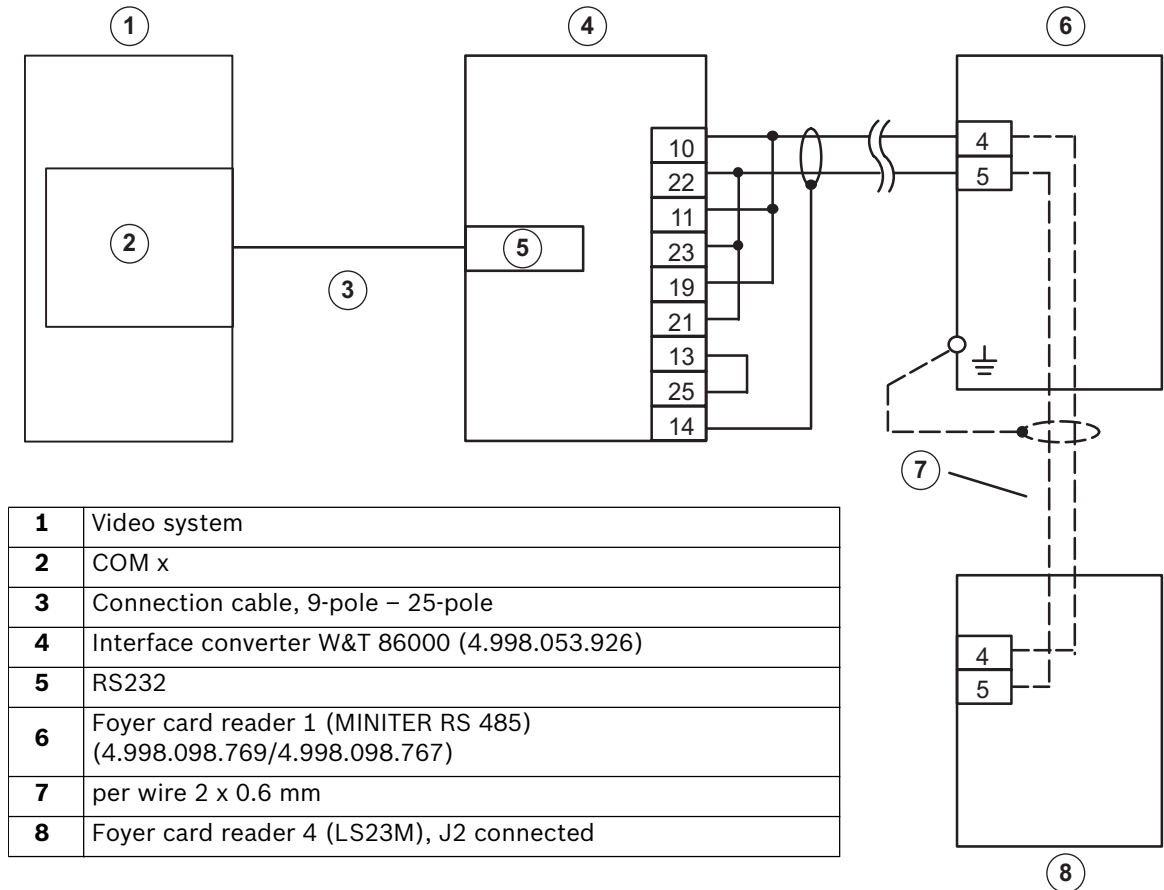| 5	Connection cable 9–pole, part no. 4.998.079.686 (1:1 connection)	11	ATM1
6	9-pole		

Note:
By re-plugging the bridges BR1 and BR2 in the OVS, it is possible to swap over the transmit and receive lines.

7.7   Connection to MINITER RS 485 foyer card reader

The MINITER RS 485 foyer card reader is connected via a serial port. A maximum of four foyer card readers can be connected in series.

It is possible to operate the LS23M and the MINITER RS 485 foyer card readers on the same serial bus. Note that the LS23M foyer card reader should preferably be installed as the last bus element.


1	Video system
2	COM x
3	Connection cable, 9-pole – 25-pole
4	Interface converter W&T 86000 (4.998.053.926)
5	RS232
6	Foyer card reader 1 (MINITER RS 485) (4.998.098.769/4.998.098.767)
7	per wire 2 x 0.6 mm
8	Foyer card reader 4 (LS23M), J2 connected

Note:

• The distance of the interface converter – last foyer card reader can be a maximum of 1000 m (installation cable J–Y(St) Y 2 x 2 x 0.6 mm).

• The foyer card reader must be correctly earthed!

• Screening may only be connected on one side.

• The connection between the foyer card readers may only be made via the connector strip of the reader.

• If the last foyer card reader on the RS 485 bus is a MINITER, the RS 485 bus must **always** be terminated with a 250 Ohm termination resistor (resistor is included in delivery).

• For flush mounting: At the rear of the housing, the angle bracket, that the credit card hits, must be cut off. Only then is the credit card data read correctly.

For further information on the functioning of the interface converter, see the description W&T Interface Model 86000.

MINITER RS 485 contact assignments
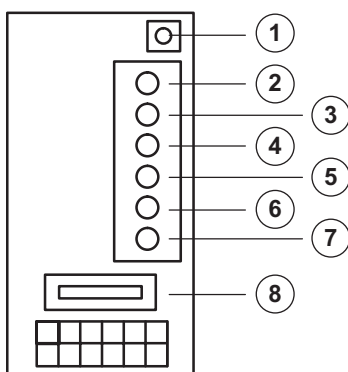
1	Tamper switch
2	0 V DC Input, GND (PIN 1)
3	Door opener output ground (PIN 2)
4	Standby contact/Working contact door opener output (PIN 3)
5	Signal RS 485– (PIN 4)
6	Signal RS 485+ (PIN 5)
7	+ 12 V DC Input (PIN 6)
8	Fuse

MINITER RS 485 foyer card reader configuration

Configuration is carried out with the MINITER RS 485 software. This can be installed on a service laptop or on the video system. Proceed as follows to configure:

1. Start the configuration software and select RS485 operation.

2. Select the COM port to which the foyer card readers are connected via the "Interface" menu item. Even if several foyer card readers MINITER RS 485 are to be programmed for the first time, only one foyer card reader should be connected during programming. This is because the foyer card reader will assign all the card readers with the same bus address by default.

3. Select the "MINITER → Read/Identify Miniter" menu and click the "Identification of all addresses" button. "Address: 48" and "Protocol: Bosch" is displayed.

4. Select foyer card reader number 48 and confirm your selection with "OK".

5. Click "Read Miniter" and enter "Password: 991357". Confirm with "OK".

6. The foyer card reader addresses must be assigned as follows.

    Foyer card reader no. 1 = address 48

    Foyer card reader no. 2 = address 49

    Foyer card reader no. 3 = address 50

    Foyer card reader no. 4 = address 51

    The other parameters must be set as follows for operation:

    – Door opening time: optional

    – Door opener with buzzer: optional

    – Door opener interval tone: optional

    – Monitoring module: no

    – Password: 991357

    – Signalchipcard: no

    – Send start character: no

    – Data on display: no

    – Evaluate track 2: yes

    – Evaluate track 3 or 1: yes

    – Open door on fault: no

    – Protocol: Bosch

    – Bloc list: optional

    – Data length track 2: 18 (for credit cards)

    – Data length track 3/1: 26 (for EC cards)

7. Set separate authorizations for credit cards (track 2) and for EC cards (track 3) to permit access to the foyer if the connection between the video system and the Miniter is interrupted (see Miniter RS 485 operating manual). Otherwise, in operation the video system handles access authorizations.

8. Save the file via the "File → Save as" menu under the name "DiBos_foyer_card_reader_x" (x = 1 .. 4).

9. Select "File → Exit".

10. Select the "MINITER → Write Miniter" menu and select and open the "DiBos_foyer_card_reader_x" file. The new and current address of the foyer card reader is displayed.

11. Confirm the address with "OK".

12. Click "Write file in Miniter" and confirm this by entering the old password. System confirmation is given when programming has been completed successfully.
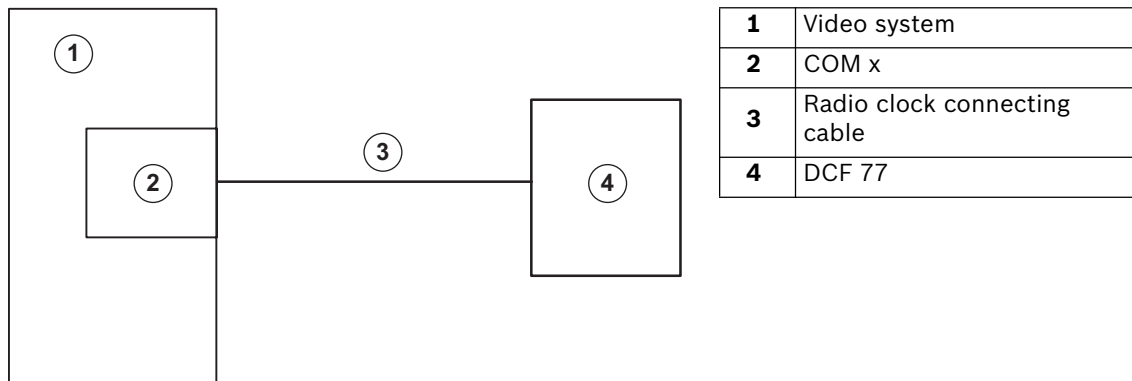
7.8   Connection to DCF 77 radio clock

To be carried out by authorized personnel only!

Connection is made via a serial port.

Note:
Only the NeoClock DCF 77 radio clock may be used.

1	Video system
2	COM x
3	Radio clock connecting cable
4	DCF 77

When retrofitting, the following installation must be carried out. Use the included installation CD.

1. Connect the radio clock to the serial port.

2. Log on as Administrator.

3. Select the interface.

    •   Select "Start → Control Panel → System".

    •   Select the "Hardware" tab and click "Device Manager".

    •   In the tree structure, open the entry "Ports" with a double click and select the interface, e.g. "Communications Port (COM1)" with a double click.

    •   Select the "Connection settings" tab.

    •   Enter the settings for the interface:
        Baud: 2400
        Data bits: 8
        Parity: None
        Stop bits: 2
        Protocol: None Confirm with "OK".

4. Radio clock installation

    •   Insert the installation CD.

    •   Call up "Setup.exe" in the Windows® XP Explorer.

    •   Select "Install server" and click "Next".

    •   Select the target directory for the program. Click "Next", if you want to use the default path or click "Browse" to select another one.

    •   Follow the on-screen instructions.

5. Once installed, configure the "Time Synchronization" program.

    •   Select "Start → Control Panel → NeoClock Time Synchronization".

    •   Make the following settings in the configuration menu:
        Language: "USEnglish"
        Port: "COM x" (interface used)
        Synchronization: "Automatic"
        Time lag: Select "0" (hours) and "Daylight saving time"
        License: Enter serial number and activation code (Please note these entries are case sensitive) and confirm with "OK".

    •   Click the "Save" button.

    •   Click on "Yes" in the information window, to start the "Time Synchronization" service.

    Note:
    A timer appears in the Windows? XP task bar (at the bottom edge of the screen). This confirms that the "Time Synchronization" program has started. The color of the clock depends on the receiver status.
    Yellow: Program starting (takes up to three minutes!)
    Red: No synchronization or installation error
    Green: Synchronization of system clock with receiver is OK.

6. Exit the "NeoClock Time Server" service as follows:

    •   Select "Start → Control Panel → Administrative Tools → Services".

    •   Double-click on "NeoClock Time Server" and click on "Exit" under "Service Status" ("General" tab) to exit it.

    •   Deactivate the service by selecting the start type "Deactivated".

    •   Confirm with "OK" and close the "Services" dialog box and the Control Panel.

7. Reboot the PC.

8. The "NeoClock Time Server" program must not be configured; instead TARDIS should be used. (Program used to synchronize video systems in a network; contact Product Service Video of the video system manufacturer.)

9. To position the clock, use the NeoClock XP operating manual (available on the CD as PDF file).

7.9 Connection to modem/ISDN card (for incoming connections)

To be carried out by authorized personnel only!

Administrator rights are necessary for the following steps.

Modem selection:

- Both internal PCI modems and modems connected via serial port (exception: DSL modems) or USB can be used if supported by Windows XP.
- The V.90 and V.34 protocols must be supported.
- The country-specific admission regulations must be observed (particularly regarding operation in a telephone network, radio interference suppression, electrical safety and fire protection).
- Compatible with the properties of the national telephone network.
- Characteristics of company PBXs are to be taken into account (e. g. call−connected recognition disabling if necessary, tone/pulse dialing).

Modem installation

Install the modem according to the accompanying manufacturer's instructions. Many modem types are recognized automatically under Windows® XP. However, take into account any special features of the installation (example: If the modem does not recognize the call connected signal of a PBX, the option "Wait for call connect before dialing" must be deactivated.

For modem: Reduce timeout values for outgoing connections.

1. From the Windows® XP desktop, select "Start → Control Panel".
2. From the "Control Panel" folder, select the "Telephone and modem options" icon.
3. On the "Telephone and modem options" dialog box, click the "Modems" tab.
4. Select the installed modem in the list field and click on the "Properties" button.
5. On the "Properties of." dialog box, click the "Extended" tab then on the "Edit standard settings." button.
6. On the "General" page, under "Cancel dialing procedure after.. seconds", change the value from "60" to "15".
7. Confirm the open dialog boxes with "OK".

For modem and ISDN: Enable dial−in (if incoming calls are to be accepted)

1. From the Windows® XP desktop, select "Start → Control Panel".
2. From the "Control Panel" folder, select the "Network Connections" icon.
3. In the "Network Connections" folder, under "Network Tasks", click the "Create a new connection" icon.
4. On the "New Connection Wizard" dialog box, click the "Next" button.
5. On the "Network Connection Type" wizard page, select the option "Set up an extended connection" and click the "Next" button.
6. On the "Extended Connection Options" wizard page, select the "Accept incoming connections" option and click the "Next" button.
7. On the "Devices for Incoming Connections" wizard page under "Connection Devices", select the previously−installed modem or ISDN card. Place a checkmark next to this entry and click the "Next" button.

8. On the "Incoming VPN Connection" wizard page, activate the "Do not allow VPN connections" option and click the "Next" button.

9. On the "User authorizations" wizard page, click "Next".

10. Make the settings for the network protocol as follows: On the "Networking Software" wizard page, select the "Internet protocol (TCP/IP)" entry from the list box and make sure that there is a checkmark next to this entry.

    - Click on "Properties" and make sure that in the "Incoming TCP/IP properties" dialog box, the option "Allow callers to access my local area network" is not selected and that the option "Assign TCP/IP addresses automatically using DHCP" is selected. Confirm with "OK".

    - Click the "Next" button on the wizard page.

11. On the "Completing the Wizard" wizard page, click "Finish".

12. Edit the necessary settings in the DiBos configuration.

Settings necessary in the computer configuration to allow dialling in

1. Select the "Remote stations" menu.

2. Activate the "Accept incoming calls" check box to allow dialling in via modem/ISDN.

    Note: When the check box is activated, you are requested to enter a password. Enter the password for login on the computer.

3. Confirm the entries with "OK".

Settings necessary in the computer configuration from which dialling in is made possible

1. Select the "Remote stations" menu.

2. Click on "New" and enter a name.

3. Activate the "Modem/ISDN" check box.

4. Under "Number", enter the telephone number.

5. Leave the "User" field unchanged.

6. Click on "Enter password".

7. Enter the computer password to allow dialling in.

8. Confirm the entries with "OK".

7.10   Connection to AutoDome/SAE−Dome
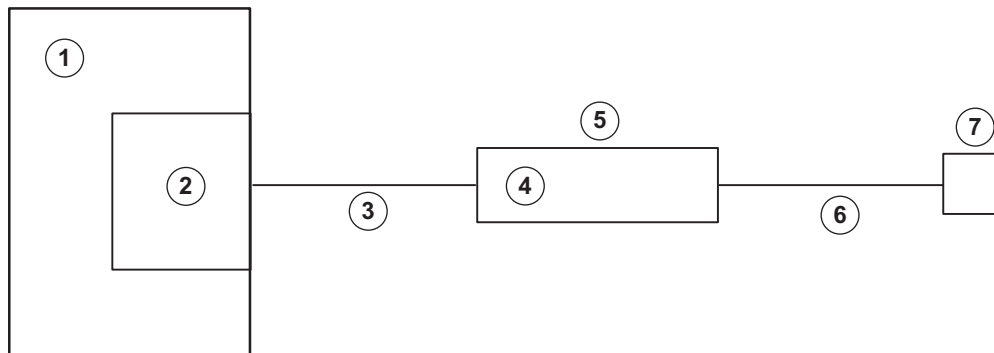
Connecting to Bosch Dome cameras (directly)
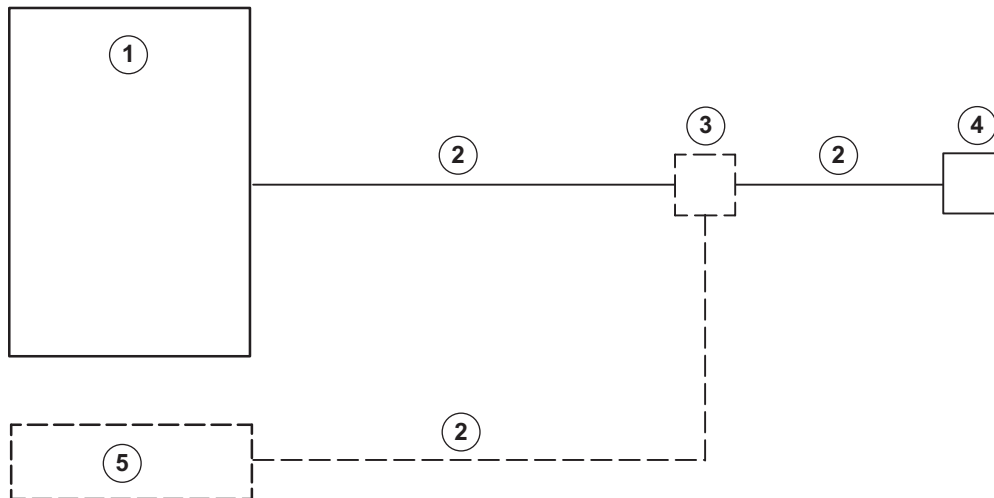
1	Video system	**4**	AutoDome
2	Biphase	**5**	LTC matrix switch
3	Code multiplexer LTC 8569 or LTC 8570		

Note:
An LTC 8569 or LTC 8570 is needed, when a Bosch LTC matrix switch is connected to the video system together with an AutoDome.
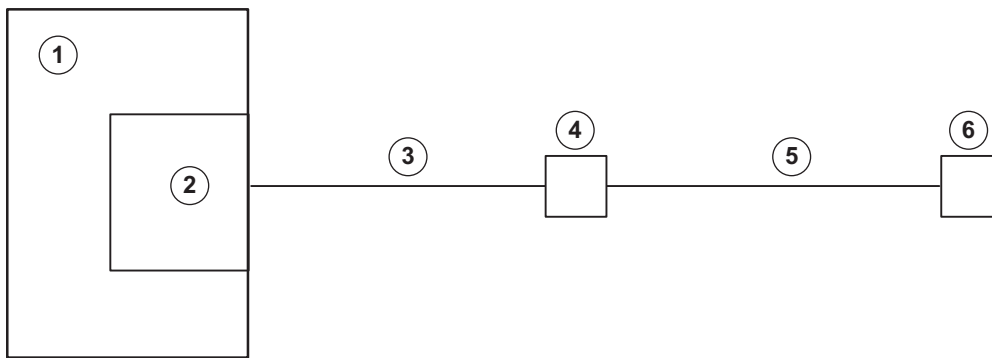
Connecting to Bosch Dome cameras via matrix switch

1	Video system	**5**	LTC 8x00
2	COM x	**6**	Biphase
3	Allegiant console cable LTC8506/00	**7**	AutoDome
4	Console port		

Note:
Valid CCL commands can be configured in DiBos. These pre-configured commands can subsequently be manually sent to the Allegiant matrix switch.

Connecting to SAE Dome cameras (directly)

1	Video system	**4**	RS 232/RS 485 converter e. g. LNL–108 A
2	COM x	**5**	RS 485
3	RS 232	**6**	SAE Dome

Connecting to SAE-Dome cameras with V3032 Biphase interface
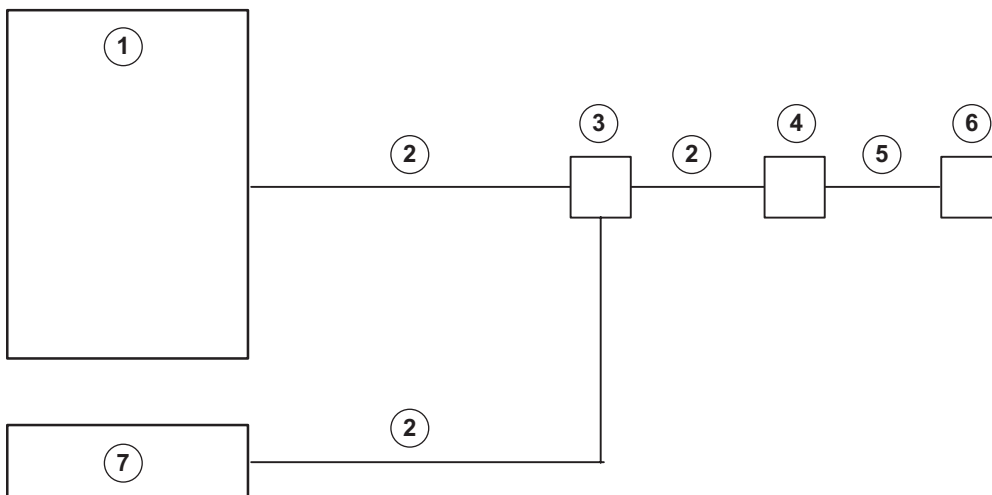
1	Video system	**5**	RS 485
2	Biphase	**6**	SAE Dome
3	Code multiplexer LTC 8569 or LTC 8570	**7**	LTC matrix switch
4	Protocol converter SAE (V3032)		

Note:
An LTC 8569 or LTC 8570 is needed, when a Bosch LTC matrix switch is connected to the video system together with an SAE Dome.

7.11 Connection to AP

7.11.1 General

Connection of the video system to an AP is made via an RS232 interface on COM x, for example using an intermediate OVS interface converter.
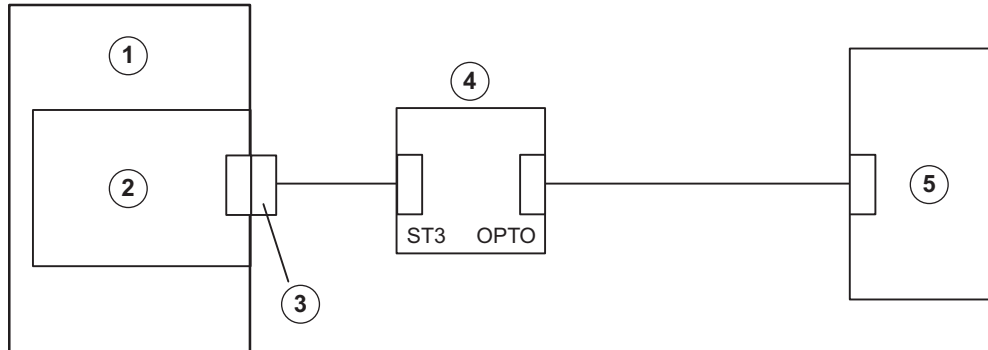

1	Video system
2	COM x
3	RS 232 interface
4	OVS interface converter
5	Bosch AP

For connection of the video system, no alarm-specific modifications are necessary on the respective APs (the required interface module must be present). All settings are made via the video system user interface.

The AP must have data transmission enabled and be fitted with an appropriate interface module (see relevant connection).

Using the OVS assembly, any differing transmit and receive assignments on the unit for V.24 connection can be equalized out. Bridges BR1 and BR2 can be re-plugged.
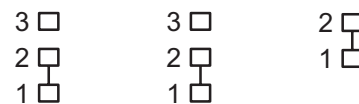
OVS interface converter bridge assignments
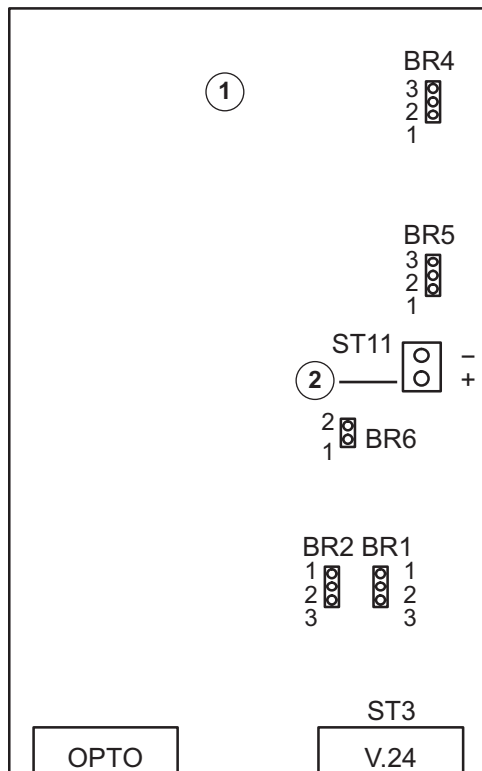
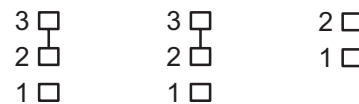| 1	OVS
2	12V/24V connection

Warning:
Pull out the mains plug before opening the OVS!

For 12 V/24 V supply

BR4,	BR5,	BR6,
Position 1/2	Position 1/2	Position 1/2

For 230 V supply

BR4,	BR5,	BR6,
Position 2/3	Position 2/3	

Transmit and receive lines are exchanged

Variant 1:

BR2,	BR1,
Position 1/2	Position 1/2

ST3:

Pin 2 = transmit line

Pin 3 = receive line

Variant 2:

BR2,	BR1,
Position 2/3	Position 2/3

ST3:
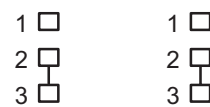
Pin 2 = receive line

Pin 3 = transmit line

OPTO plug pin assignments

Direction	Connection
Input -	1
Input +	6
Output +	5
Output -	9

V.24 (ST3) plug pin assignments

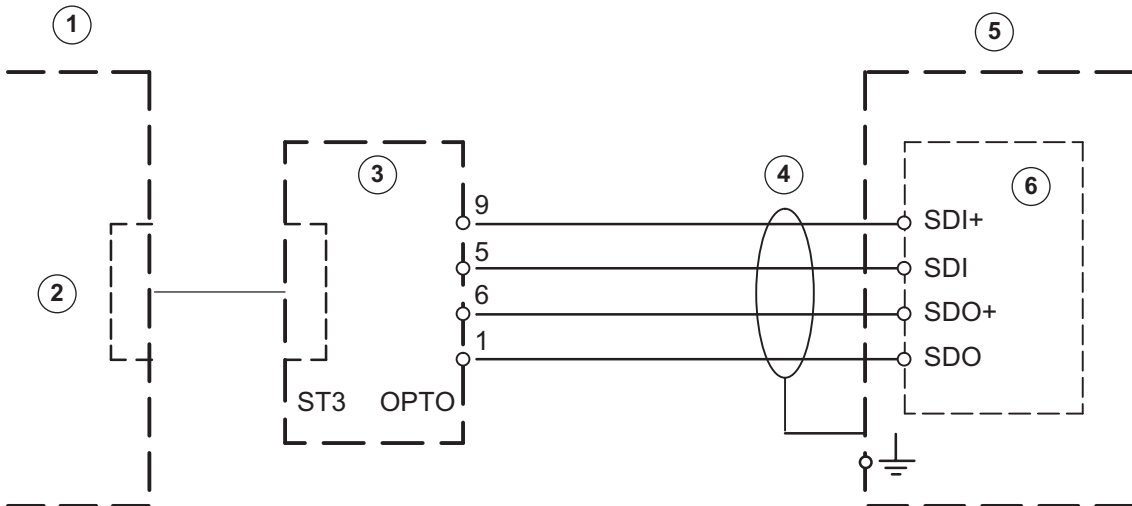| Direction	Connection
Transmit/Receive *	2
Receive/Transmit *	3
0 V	5

* depending on BR1/BR2

Note:
For cabling, telephone cables of type J–Y(St)Y 2x2x0.6 are recommended. The cable screen must be earthed at the alarm panel side to avoid earth currents.

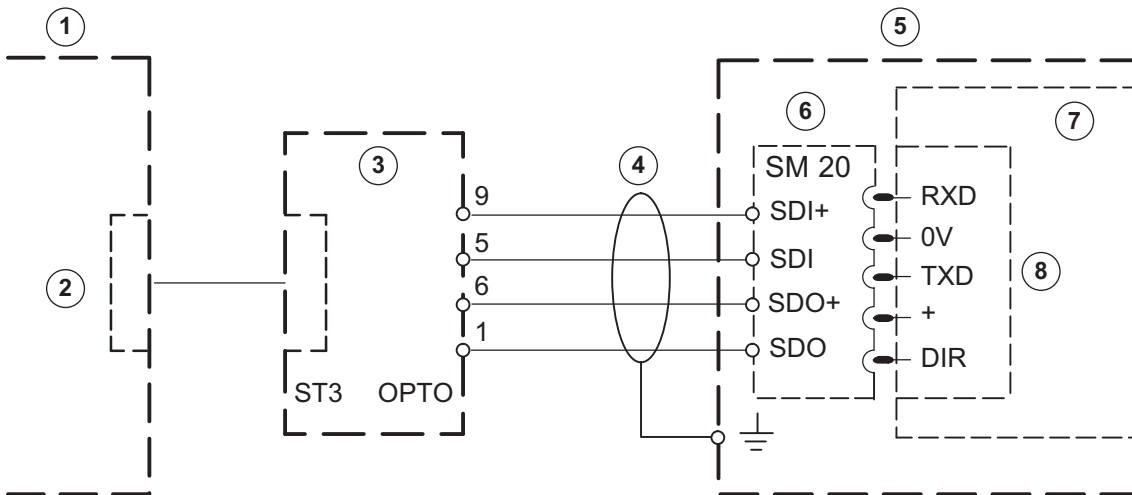### 7.11.2 Connection to NZ 500 (20 mA) video system NZ 500

Connect screening wire only for NZ 500
Installation cable J–Y (St) Y 2x2x0.6

SU 500:
BR1 connected (1200 bit/s)

1	Video system	4	Range max. 1000 m
2	COM x	5	NZ 500
3	OVS	6	SU 500

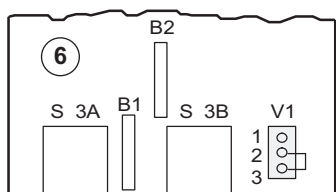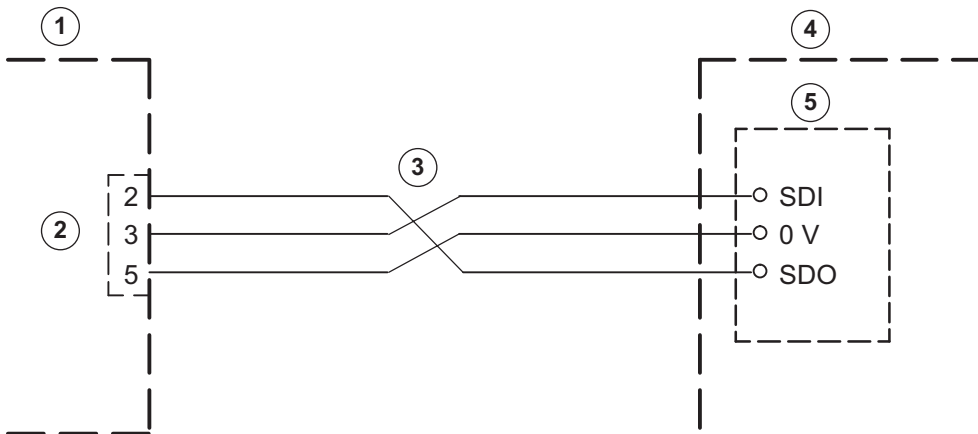### 7.11.3 Connection to BZ 500 (20 mA)

Connect screening wire only for NZ 500
Installation cable J-Y (St) Y 2x2x0.6

Note:
COM 2 and COM 3 only with interface assembly ERSE 10

1	Video system	5	BZ 500 LSN
2	COM x	6	SM 20
3	OVS	7	ANNE 10
4	Range max. 1000 m	8	COM 1 to COM 3

7.11.4   Connection to AZ 1010/NZ 1008
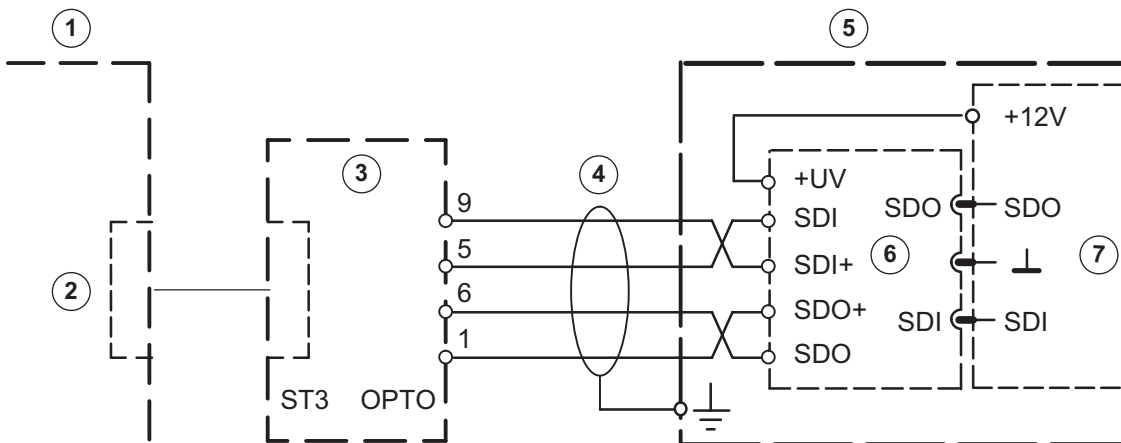
V.24 connection to AZ 1010/NZ 1008

Connection of the AZ 1010/NZ 1008 must be programmed on the alarm panel side

Bridge assignment (V) on the SMA
Plug-in bridge V1 in pos. 2/3
Level for V.24 interface

1	Video system	**4**	AZ 1010/NZ 1008
2	COM x	**5**	SMA
3	max. 25 m	**6**	SMA

20 mA connection to AZ 1010/NZ 1008

Bridge assignment (V) on the SMA
Plug-in bridge V1 in pos. 1/2
Level for V.24 interface

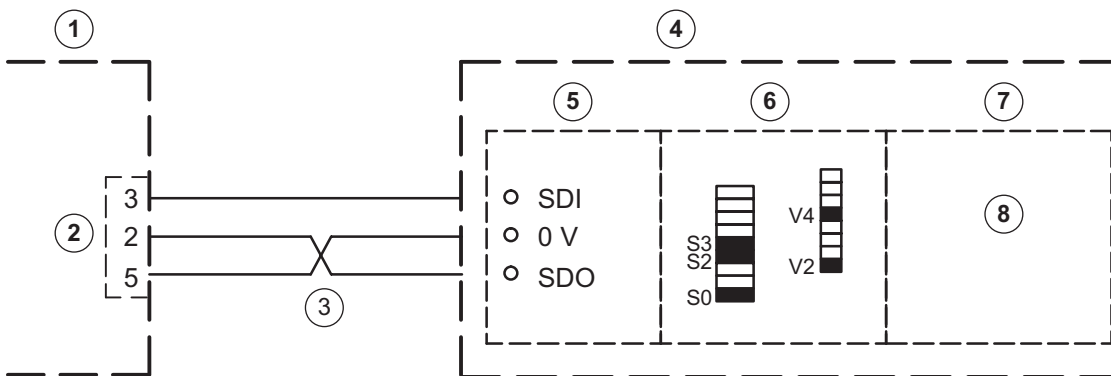Connect screening wire only for AZ 1010/ NZ 1008.
Cable J-Y (St) Y 2x2x0.6

1	Video system	**4**	Range max. 1000 m
2	COM x	**6**	GOM
3	OVS	**7**	LNA
5	AZ 1010/NZ 1008		

7.11.5   Connection to NZ 1012

V.24 connection to NZ 1012

1	Video system	5	EAN
2	COM x	6	SSM
3	max. 25 m	7	ZSN SW issues: 18508.0 A8.1, 18508.1 A8.1
4	NZ 1012		

Dip-Fix assignment (S) and bridges (V) on the SSM
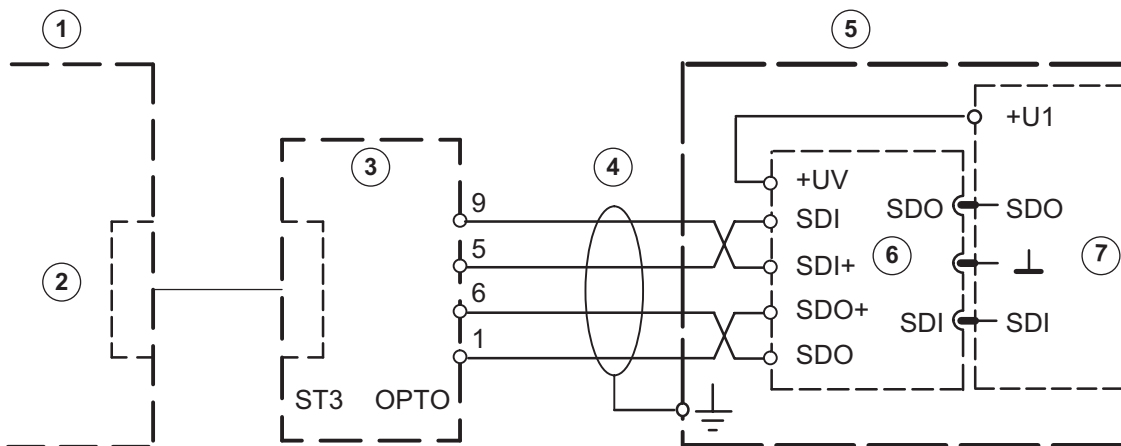
Interface 1:			**Interface 2:**		
S0	on:	1200 Baud	S4	on:	1200 Baud
S1	off:	Video system	S5	off:	Video system
S2	on:	Transmission priority for NZ 1012	S6	on:	Device is connected
S3	on:	Device is connected	S7	on:	Transmission priority for NZ 1012
V2, V4	connected:	V.24 interface	V12, V14	connected:	V.24 interface

Note: It is possible to connect to interface 2.

20 mA connection to NZ 1012

1	Video system	5	NZ 1012 (insert SSM bridges at "20 mA".)
2	COM x	6	GOM
3	OVS	7	EAN
4	Range max. 1000 m		

7.11.6   Connection to NZ 1060

V.24 connection to NZ 1060
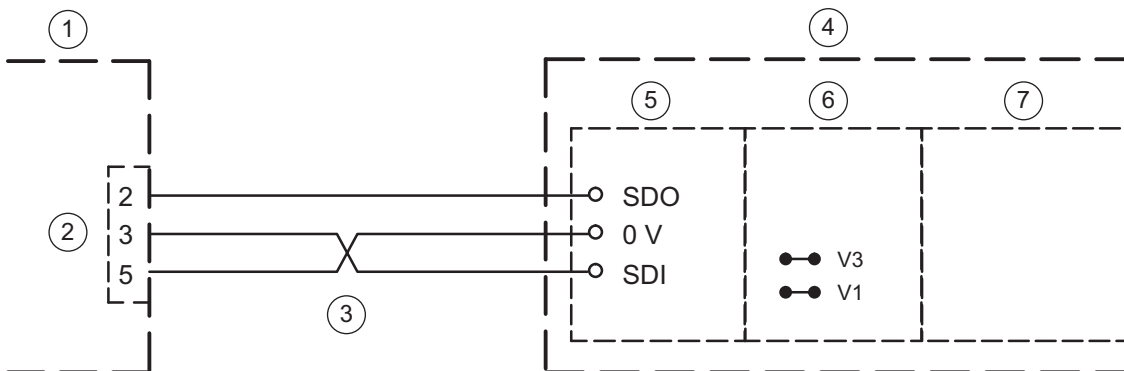
1	Video system	5	ZAN
2	COM x	6	SIE
3	max. 25 m	7	ZVE (SW issues: 18033.0 A6.2, 18033.2 A6.2, 18033.3 A6.2)
4	NZ 1060		

Note: By preference, interfaces 6 to 9 should be used; for a specific project, connection to interfaces 2 to 5 is also possible.
Program the appropriate interface to AUX (1200 Baud), insert bridges at SIE (V1, V3) for V.24 interface.

20 mA connection to NZ 1060
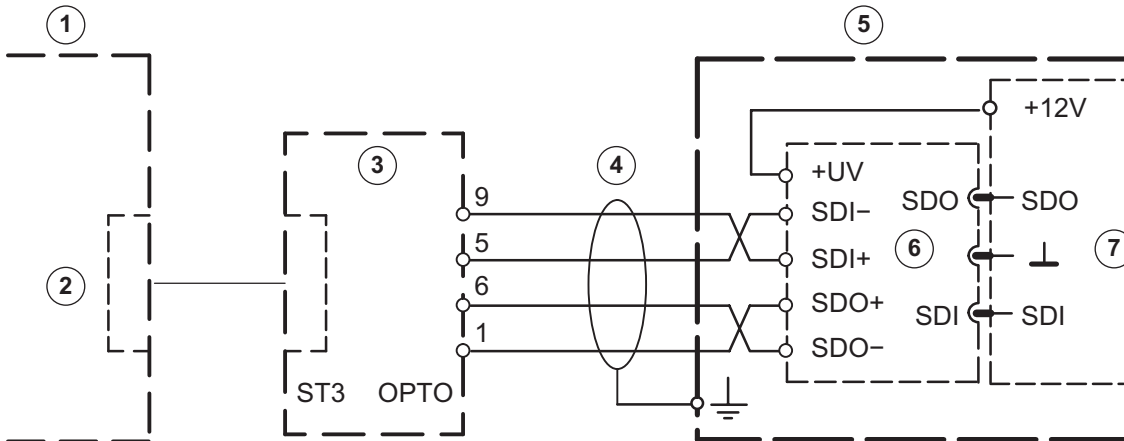
1	Video system	5	NZ 1060
2	COM x	6	GOM
3	OVS	7	ZAN
4	Range max. 1000 m		

By preference, interfaces 6 to 9 should be used; for a specific project, connection to interfaces 2 to 5 is also possible. Program the appropriate interface to AUX (1200 Baud), insert bridges at SIE (V2, V4) for 20 mA interface.
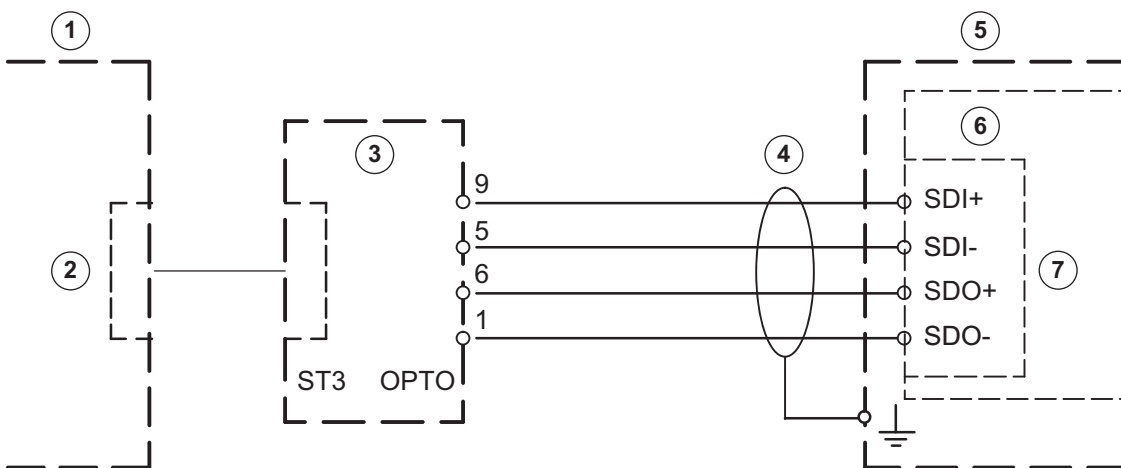
7.11.7   Connection to UEZ 1000 (20 mA)

1	Video system	5	UEZ 1000
2	COM x	6	AVK
3	OVS	7	20 mA−1 to 20 mA−3
4	Range max. 1000 m		

Connect screening wire only for UEZ 1000.
Installation cable J-Y (St) Y 2x2x0.6

7.11.8   Connection to UEZ 2000 (20 mA)
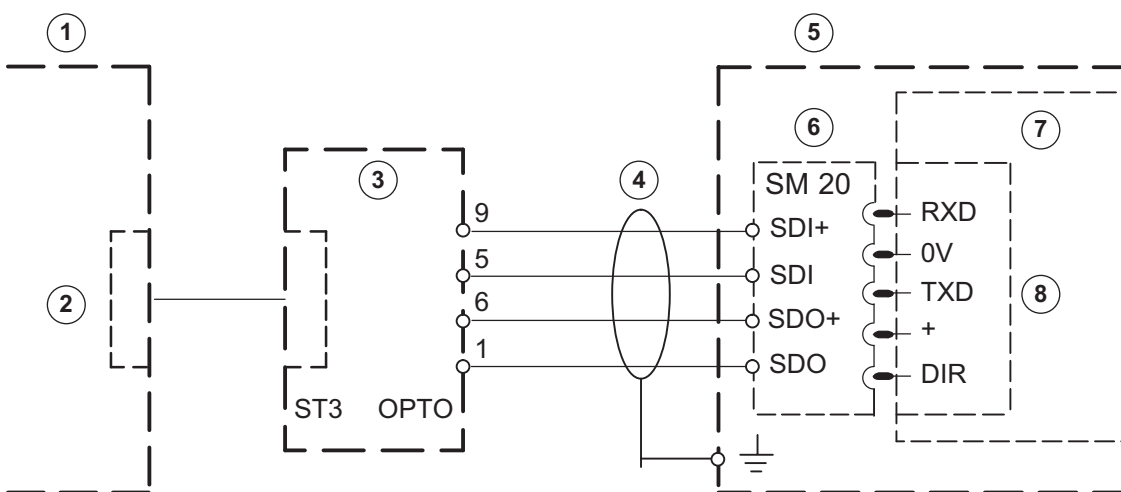
1	Video system	5	UEZ 2000 LSN
2	COM x	6	SM 20
3	OVS	7	AVM 100
4	Range max. 1000 m	8	COM 1 to COM 5

Connect screening wire only for UEZ 2000.
Installation cable J–Y (St) Y 2x2x0.6

Note:
COM 4 and COM 5 only with interface
assembly SEMO1

7.11.9   Connection to UGM 2020

20 mA connection to UGM 2020 via TESP (for telephony)
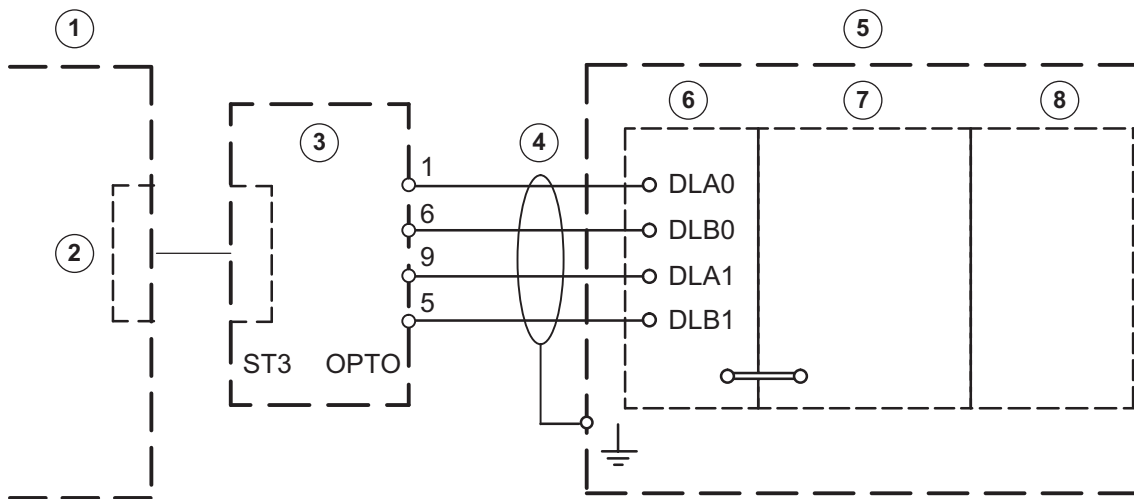
1	Video system	**5**	UGM 2020
2	COM x	**6**	TESP (Br. 1–4 open)
3	OVS	**7**	SGK (SW issues: SGKUGM)
4	Range max. 1000 m	**8**	EPC/EPC2 (from EAPS–4, EAPS–5)

20 mA connection to UGM 2020 via UESS video system
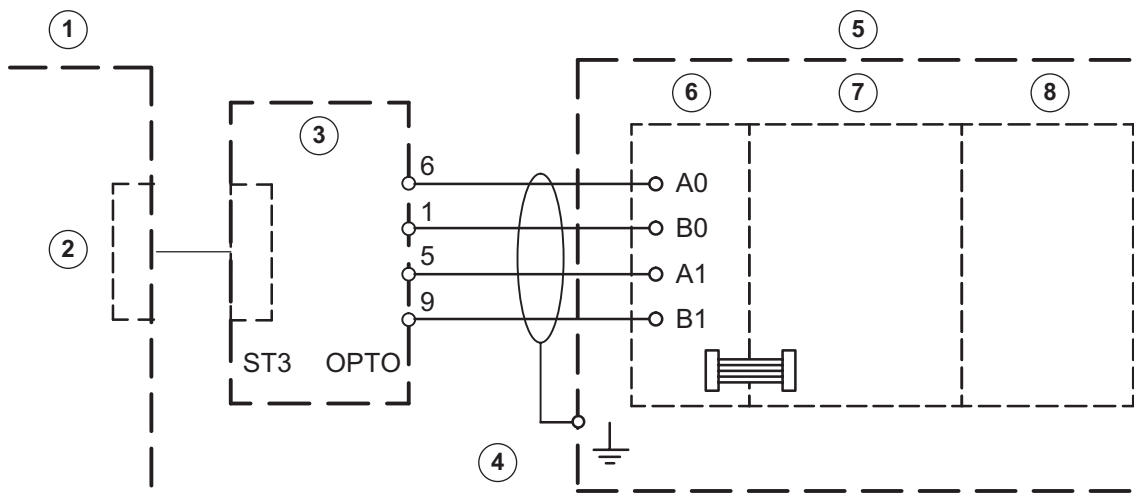
1	Video system	**5**	UGM 2020
2	COM x	**6**	UESS
3	OVS	**7**	SGK (SW issues: SGKUGM)
4	Range max. 1000 m	**8**	EPC/EPC2 (from EAPS–4, EAPS–5)

7.11.10 Connection to Bosch D9000 series
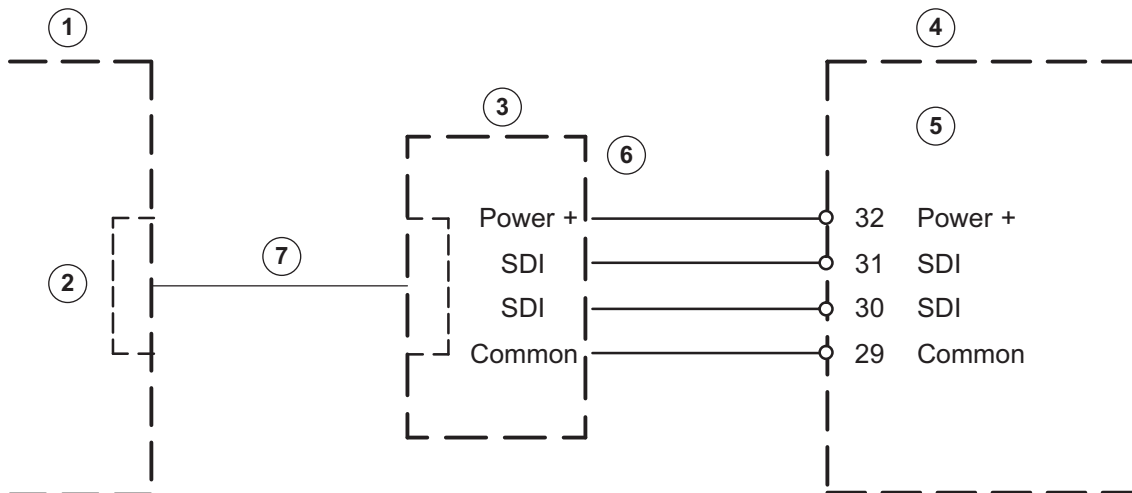
1	Video system	**5**	see Note 1
2	COM x	**6**	see Note 2
3	D9133	**7**	see Note 3
4	Bosch D9000		

The video system triggers on
– unacknowledged alarm status
– unacknowledged monitoring status
– unacknowledged malfunction status

Note:

1. The Bosch D9000 must have software revision 6.3 or higher. For additional informa-
    tion, please use the system installation handbook. Configuration of the system is
    necessary (see SDI Automation chapter).

2. D9133 module (not contained) must be set to address 80. Only one D9133 per sys-
    tem is permitted. For additional information, please use its installation handbook.

3. When connecting a D9133 to DiBos, a "DB9F" null modem cable (not contained)
    must be used. Additional configuration in DiBos is necessary to be able to use the
    D9000 for job activation. For additional information, please use DiBos installation
    handbook (see page 68 "Configure inputs and outputs").

8 Fixing malfunctions and checking

This chapter contains notes on malfunction causes which may possibly occur when installing or operating. If you are unable to fix the cause of the malfunction, please consult the "Product service video" of the video system manufacturer.

8.1 Fixing errors

Malfunction	Possible causes	Fixes
All cameras are crossed off.	The grabber card is faulty.	Replace grabber card.
All AP inputs have been in the alarm state for more than 10 seconds.	Interface error to AP.	Fix interface error.
"Dongle not found" message	Dongle missing or feature not enabled.	Plug in dongle or add feature.
Camera video signal missing	–	• Check video signal
Alarm memory (spur) full.	–	• Manually delete alarm images
Hard disk is full	• No drive has more than 50 MB free	• Connect external hard disk or check configuration
Images could not be written	• Images have been written in too many archives	• Modify recording
Software feature not working	Check dongle enabling	Dongle enabling can be seen in the configuration
External hard disks are not recognized by the system	• Terminator missing	• Plug in terminator
	• Hard disk ID used twice	• Set hard disk IDs in ascending order
	• Disks are not formatted	• Format disks to NTFS in Disk Manager.
No ISDN connection	• Transmitter and receiver connection passwords do not agree	• Check connection passwords
	• Wrong protocol set	• Select appropriate protocol (EURO–ISDN) via an ISDN-PCI setup.

8.2   Checking optional network connections

Information on networking

To install and test the network, the following information from the network provider is necessary:

• IP address

• Subnet Mask

• (Gateway)

Notes on testing network

To install and test the network, use the following test program:

1. Select "Start → All Programs → Accessories → Command Prompt".

2. The following commands are, among others, available to you:

   ping

   This command is only available when the TCP/IP protocol is installed.

   ping localhost

   This program checks the communication to its own computer. A network is a prerequisite for Token Ring.

   **ping <remote station name> or
   ping <remote station TCP/IP address>**

   The program checks the communication to the remote station.

   arp -a

   The program displays other computers after making contact with them.

   ipconfig

   Shows all current TCP/IP network configuration values (IP address, Subnet Mask, default gateway)

   tracert <remote station name>

   This program determines the route to a target.

   net view

   Displays all available remote stations.

Note:
Ping does not work if UDP tunneling is activated in the configuration.

8.3   Testing the optional ATM connection

The data telegram between the video system and ATM can be checked using the "Hyper Terminal" program in Windows® XP.

- Start the program with the menu "Start → All programs → Accessories → Communications → HyperTerminal"

- Enter a name (test name) into the dialog box after the start and confirm the entry.

- On the following dialog box, select the interface to which the interface processor is connected (input field "Connect using"). Confirm with "OK".

- Enter the following parameters:
  – Baud: 9600
  – Data bits: 8
  – Parity: None
  – Stop bits: 1
  – Flow control: None
  Confirm the entries with "OK".

- In the menu "File → Properties → Settings → ASCII–Setup" activate the check box "Append line feeds to incoming line ends". Confirm with "OK".

Hyper Terminal configuration is finished. The data can be evaluated.

Data telegram between video system and interface processor:

Telegram	Comment

■1■280897■1318■08896■   ■   ■   ■   ■1■■   ①
■1■280897■1318■08896■   ■82054135■0532037398■   ■ ■■   ②
■1■280897■1318■08896■   ■82054135■0532037398■220■ ■■   ③
■1■280897■1318■08896■   ■82054135■0532037398■220■2■■   ④
■1■280897■1318■08896■   ■82054135■0532037398■220■ ■■   ⑤
■1■280897■1318■08896■   ■82054135■0532037398■220■ ■■   ⑥

⑦ ⑧   ⑨ ⑩ ⑪   ⑫   ⑬   ⑭ ⑮

1	Card in ATM	8	Date	
2	Card recognized by ATM	9	Time	
3	Enter amount	10	Transaction number	(depends on ATM and computing center, not always available)
4	Hand to cash	11	Machine number	
5	Removal of cash	12	Bank sort code	
6	End of transaction	13	Account number	
7	Interface number (0 – 3 for ATM1 – ATM4)	14	Amount	
		15	Camera number/Action	

Note:
Action 1 = Message "Card in ATM"
Action 2 = Message "Hand to cash"

For some ATMs, a message is generated as soon as the card is pushed in, however without bank code and account number.
For other ATMs, the message is first generated when the bank code and account number have been read and the PIN entry has been made correctly.

8.4 Testing the optional web connection

After activating the web application, check that you actually have access.

Proceed as follows:

1. Start the web browser (Internet Explorer 5.x and higher or Netscape Navigator 7.x and higher).

2. In the browser, enter "http://hostname" under the address. As "host name" give either the IP address or the name of the computer on which the web server is installed.
    The video system web application logon mask is displayed when the connection has been made. It is now possible to log on.

9 Notes on maintenance and service

9.1 Maintenance work to be carried out

Perform the following maintenance work:

- On the video system itself
  – check that all cable connectors are firmly seated
  – check the ventilator fan and clean if necessary
  – clean the screen if dirty
  – check and set system time if necessary.

- Check the last five saved images per camera with regard to quality (e.g. sharpness, brightness, contrast).

- The images stored in the archives must be randomly checked (with regard to image quality and additional data)

- At least one triggering by a connected AP or a directly connected contact must be undertaken. The images placed in the archives due to this action must be checked and then deleted.

- The hard disk load must be checked. In agreement with the customer, it may be possible to delete spur images.

- Cleaning of all freely accessible cameras and lenses as well as ceiling dome cameras and front screens of external cameras is to be carried out. While doing so, the connecting cables and plugs must be checked.

- The reference images printed or saved during installation of the system must be compared to the corresponding live images of the cameras with regard to their alignment. The customer is responsible to the administrative association (BGV) for the setting of the image frame size.

- A functional tests in accordance with UVV Kassen must be carried out at least once per month. The SP 9.7/7 "Requirements for testing of optical room monitoring systems" must be taken into account.

- Checking of the customer-owned printer (1 printout).

- A test connection is to be set up for the ISDN connection.

- For the ATM connection
  – the connecting cables on the interface processor and the OVS are to be checked,
  – transmission of the transaction data is to be checked and
  – the Zuko data display (check connection cable to Zuko)

- All work carried out is to be documented in the operating handbook.

Warning:

All work on the system that affects the recording operation may only be carried out after previous agreement with the customer. For UVV-relevant devices,it is preferable that this is carried out outside the counter opening times.

If defective, the system (without dongle) is to be exchanged. A loan unit will be made available by the video system manufacturer during this time.

Maintenance work carried out by the operator

The operator carries out

- exchange of the toner cartridge for laser printers,

- replenishing printer paper or the video printer paper cartridge, and

- exchange of the color cartridges for ink jet printers.

- Clean air filter

9.2 Software update

Installation of the software is carried out principally as Windows® XP Administrator.

9.3 Fixing errors

The following errors are to be fixed if possible:

- Backlighting:
  If backlighting effects are determined when recording, the light source must be covered up, for example by curtains on windows or lampshades on lighting, or the location of the camera changed.

- Reflections:
  If the optical room monitoring system is enclosed in bulletproof or toughened glass, reflections may be caused due to the lighting conditions. These becomes stronger as the degree of light within the glass enclosure increases. Such reflections may be reduced by increasing the illumination of the area outside the glass enclosure and positioning the cameras closer to the glass. Reflections can often be avoided by covering light sources behind or next to the camera. If these measures do not help, a polarization filter can be fitted in front of the lens.

- Sharpness:
  When checking recordings, care should be taken that persons and objects are sharply delineated within the defined recording zone. To allow better setting of the image sharpness, so-called gray or ND filters can be placed in front of the lens.

- Contamination:
  The quality of the recordings is often affected by dirt on the lens or the security housing screen.

Errors or functional problems can be fixed by

1. disconnecting and again reconnecting the local or remote connection in the video system program,

2. exiting the program and booting it again, or

3. warm starting or switching the system off and then on again (with a wait time of approximately twenty seconds),

If this does not restore normal operation, the configuration must be checked.

If the fault cannot be fixed, the system must be replaced.

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