

## Divar 2 - Digital Versatile Recorder with internal DVD writer



Security Systems

EN | Operation Manual

**BOSCH**



# Divar 2

Digital Versatile Recorder  
with internal DVD writer

Operation manual

## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions - All the safety, operating and installation instructions should be read before the unit is operated.
2. Keep these instructions - The safety, operating and installation instructions should be retained for future reference.
3. Heed all warnings - All warnings on the unit and in the operating instructions should be adhered to.
4. Follow all instructions - All operating and use instructions should be followed.
5. Do not use this apparatus near water - for example, in an unprotected outdoor installation; or any area which is classified as a wet location.
6. Clean only with a dry cloth - Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit into the outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug this unit during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### FCC & ICES INFORMATION

(U.S.A. and Canadian Models Only)

This is a Class B product. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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## SAFETY PRECAUTIONS



**CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

This label may appear on the bottom of the unit due to space limitations.



The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING**  
**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.**



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



Power Disconnect. Units have power supplied whenever the power cord is inserted into the power source. The power cord is the main power disconnect for all units.



The socket outlet shall be installed near the equipment and shall be easily accessible.

The DVD writer is a laser product. The following classification label is located on the drive.

**CLASS 1 LASER PRODUCT**  
**CAUTION:**  
**INVISIBLE LASER RADIATION WHEN OPEN.**  
**AVOID EXPOSURE TO BEAM.**

## Reference

### Definition of terms

- Cameo:** Single camera picture in a multiscreen display.
- Dwell time:** The length of time that an alarm indicator continues to operate after the action causing it has occurred. The length of time that one image of a sequence is shown.
- Full-screen:** A display that only shows one picture occupying a full screen.
- Multiscreen:** The division of a display screen so that it shows a certain number of cameras at the same time.
- Sequence:** Camera pictures shown one after the other in time either in full-screen or quad modes.
- Quad:** Four camera pictures shown on one display screen.

### Icons shown on the screen

	Play forward		Pause		Alarm
	Play reverse		Freeze		Motion
	Fast forward		Zoom		Network
	Fast reverse		Sequence		Error

# Introduction

## Digital versatile recorder for security applications

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The Divar is a video recording system that can record multiple camera signals while simultaneously providing live multiscreen viewing and playback. It combines the functionality of a digital recorder with a multiplexer and a switcher. The DVD writer makes archives locally without the need for a PC. The writer supports DVD+RW, DVD+R, CD-R and CD-RW media.

The unit has comprehensive search (including smart motion search) and playback facilities for viewing stored video. Once set up, all recording takes place in the background without requiring operator intervention. Maximum recording rates of 60 (NTSC) and 50 (PAL) images per second are guaranteed with unsynchronized cameras. The recording rate and quality are selectable per camera.

All models have extensive alarm handling functions and telemetry control. Alarm functions include motion detection in user-definable areas of the image on any camera input. The unit can be easily operated and programmed via the front panel control keys and on-screen display menu system. One monitor output provides full-screen, quad and multiscreen viewing; another spot/alarm. A keyboard can be connected to improve the ease-of-use.

Via a network, the Control Center PC-application can be used for live viewing, playback and configuration. Six simultaneous users can control multiple Divars. The Divar includes an authenticity check for both local and remote playback. A dedicated PC player is provided for playback of secure video files.

ATM/POS transaction data can be recorded and viewed if the Divar has an ATM/POS bridge unit and a license installed.

## Versions

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There are three Divar models; 6-channel, 9-channel and 16-channel, each with various storage capacities. This manual describes the 16-channel version. Both 6-channel and 9-channel versions operate in exactly the same way except that fewer cameras can be connected, there are fewer camera keys and the number of multiscreen views is reduced.

## Setup


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The unit is configured by an administrator. Access to the configuration functions is normally password protected. The choices made during setup can restrict the functions available to the operator. For example, the number of multiscreen views can be limited.

Search and playback functions can also be password protected, so it is possible that they are not available to the operator. All possible operator facilities are described in this manual but some of these may not be available to you.

## On-screen help


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On-screen help is available for all topics. Just press the yellow ALT key  for at least one second to see the help text associated with your current activity.






Press the escape key  to exit help.

## Front panel controls

### Indicators


The power indicator  lights to indicate that power is being supplied to the unit.




The indicators across the top of the controls light or flash to alert you to various operating conditions.

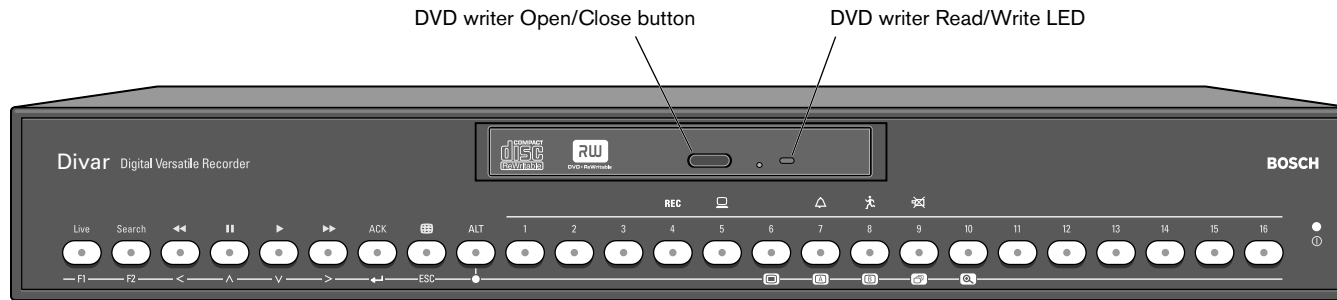
	Record	- lights when the unit is recording video.
	Network	- lights when a remote user is connected to the unit.
	Alarm	- flashes when an alarm is detected.
	Motion	- flashes when motion is detected in a camera signal.
	Video loss	- flashes when a video loss condition is detected for a camera input.

### Keys

The keys on the front panel can be used for controlling primary functions or alternate functions. Symbols for the primary functions are shown above the keys. Symbols for the alternate functions are shown below the keys.










The alternate functions are activated by first pressing the ALT key  and then the desired key. When the alternate function mode is active, the light below the ALT key is lit.

The unit automatically exits the alternate mode if the monitor A key , monitor B key  or sequence key  is pressed. When in a menu, the keys operate according to their alternate function.



## Primary functions









(light below ALT key off)






- |   |              |   |   |                  |  |
|---|--------------|---|---|------------------|--|
|  | Live key     | - press to switch to live viewing.  |  | ACK key          | - press to acknowledge an alarm.   |
|  | Search key   | - press to open a search menu to look for recorded events.  |  | Multiscreen key- | press to see different monitor display layouts.  |
|  | Rewind key   | - in live mode, press to start reverse playback of recordings for the displayed cameras.<br>- in playback mode, press to speed up rewind.<br>- in pause mode, press to step back one frame.           |  | ALT key          | - switches the front panel keys between a normal function and an alternate function (shown below the key).<br>- press for longer than one second to get on-screen help.  |
|  | Pause key    | - in live mode, press to freeze a camera picture.<br>- in the playback mode, press to freeze playback picture; press for longer than one second to protect recordings or archive them to a DVD or CD. | 1 - 16*   | Camera keys      | - press to see a full-screen display of the camera's picture.<br>- in the menu mode, press to select the camera or enter a number.<br>- press current camera key to switch the display of ATM/POS data on and off. |
|  | Play key     | - in live mode, press to resume playback from the last selected playback position.<br>- in pause mode, press to resume playback.  |   |                  |  |
|  | Fast forward | - in live mode, press to start playback from one minute earlier.<br>- in playback mode, press to speed up the playback rate.<br>- in pause mode, press to step forward one frame.                     |   |                  |  |

\* can be 6, 9 or 16

## Alternate functions

(light below ALT key is lit)

-  **F1** F1 key - restores defaults in active menu.
  -  **F2** F2 key - is assigned a specific function in the menu.
- Arrow keys: - move around through menu items or values.
-  **<** - Left
  -  **^** - Up
  -  **v** - Down
  -  **>** - Right
-  **Select key** - selects a submenu or menu item, or saves selections made in menus.
  -  **ESC** ESC key - press to return to previous level or to exit menu system without saving.  
- press to leave help system.

-  **Menu key** - opens the menu system.
-  **Mon A key** - assigns front panel keys to monitor A.
-  **Mon B key** - assigns front panel keys to monitor B.
-  **Sequence key** - view cameras in sequence on full-screen or quad displays.
-  **Zoom key** - zooms in on the active camera display (full-screen or active cameo).

# Viewing pictures

The unit has two monitor outputs, A and B. The way in which these monitors display pictures depends on how the system has been set up.

## Monitor A





Monitor A is the main monitor. It shows full-screen, quad or multiscreen live or playback camera pictures. Status messages, alarms, motion, and video loss warnings are also displayed on this monitor. When the menu system is activated it is displayed on this monitor.

## Monitor B





Monitor B displays a single full-screen picture of a selected camera or a sequence of full-screen pictures. When an alarm or motion input is detected, the camera picture with the flashing Alarm/Motion indicator can be displayed on monitor B. When multiple alarms or motion occur, camera pictures are sequenced on monitor B.

## Selecting a monitor to control

To control the display on monitor A:

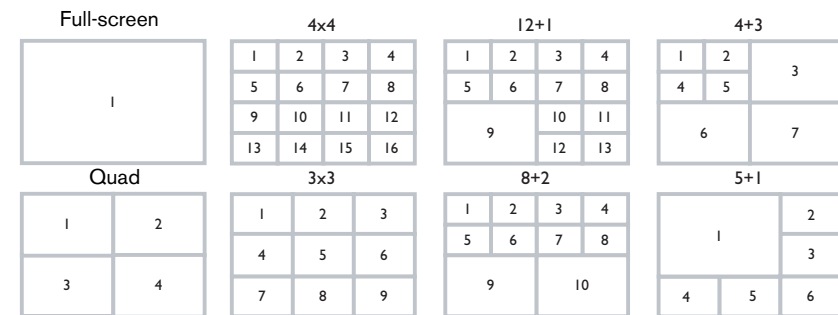
1. Check that the light  on the front panel is lit.
2. If  is not lit, press the ALT key  and then press the monitor A key .

To control the display on monitor B:

1. Check that the light  on the front panel is lit.
2. If  is not lit, press the ALT key  and then press the monitor B key .

## Viewing




The drawing shows all possible views for monitor A. Some multiscreen views may have been disabled during set-up. The number of connected cameras can also influence the multiscreen views available.



The quad mode can have 4 different quad screens that can be shown in sequence to display 16 camera pictures.


## Multiscreen

To view different multiscreen displays on monitor A:

1. Press the multiscreen key .
  - > A multiscreen display of camera pictures appears on monitor A.
2. Press the multiscreen key  again to go to the next programmed multiscreen view.
  - > If you continue to press the multiscreen key , the unit cycles through all enabled multiscreen views.






## Full-screen

To view a full-screen shot of a camera:

1. Press a camera key.
  - > A full-screen shot of the camera you selected appears.
  - > The camera key of the selected camera lights (green).
2. Press the multiscreen key  to go back to your previous multiscreen view on monitor A.




## Sequence

To view a sequence of live camera pictures of several cameras:

1. Press the ALT key  and then the sequence key .
  - > The  indicator lights.
  - > A sequence of camera pictures appears, each for a pre-programmed amount of time.
2. Press the ALT key  and then the sequence key  to stop sequencing.
  - > Zooming, pressing the multiscreen key or selecting a single camera also stops sequencing.

## Cameo assignment



Assigning cameras to cameos in a multiscreen view:

1. Press the ALT key  and then the multiscreen key .
  - > The multiscreen key indicator flashes.
  - > The border around the active cameo is green.
  - > The camera key of the camera shown in the active cameo lights (green).
2. Use the arrow keys if you wish to select a different cameo.
3. Press a camera key to display that camera's picture in the active cameo.
  - > The camera is assigned and the following cameo becomes active.
4. Continue to press camera keys to assign camera pictures to cameos.
5. Press the ALT key  to interrupt cameo assignment and exit the assignment mode.
  - > The assignment mode is automatically ended when all cameos have been assigned.

The cameo assignment that you make is used in playback mode as well as in live mode.

## Image freeze






Freezing a camera shot on monitor A:

1. Press the pause key  to freeze the picture in the active cameo.
2. Press the pause key  again to return to live viewing.

If you are viewing a camera picture in full-screen mode, then this picture is frozen. The zoom function can be used on a frozen picture. If you change viewing mode, any frozen pictures are released.

## Zoom

To zoom in on a camera picture:

1. Press the ALT key .  
> The ALT indicator lights.
2. Press the zoom key .  
> The zoom indicator lights.  
> The picture is enlarged by a factor of 2.
3. Use the arrow keys to select the area of the picture to be displayed.
4. Press the zoom key  again to zoom in further.  
> The picture is enlarged by a factor of 4.
5. Use the arrow keys to select the area of the picture you want to see.
6. Press the zoom key  again to return to a full picture and leave the zoom mode.  
> The zoom indicator no longer lights.
7. Press the ALT key  to return the keys to normal operation.  
> The ALT indicator no longer lights.


## Live, playback and search modes

### Live mode




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The live mode is the normal operating mode of the unit where you watch live pictures from the cameras. From the live mode you can switch to the search mode, the playback mode or to the system menu.

Access to search and playback functions may require a password. Discuss this with your administrator.

Press the search key  to switch to the search mode. The search menu opens.

To enter the playback mode use one of the following keys:







- Press the rewind key  to start reverse playback of recordings for the displayed cameras.
- Press the forward key  to start playback from one minute earlier.
- Press the play key  to resume playback from the last selected playback position.



Press the live key  to switch back to live viewing. An alarm also switches the unit back to live viewing.

### Playback mode

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In playback mode the video control keys operate as follows:

- Press the rewind key  to start reverse play of recordings. Pressing it again and again increases the display rate to a maximum and then back to normal speed again. Press the rewind key  in the pause mode to step back one field at a time.
- Press the pause key  to freeze the picture.
- Press the forward key  to start forward playback of recordings. Pressing it again and again increases the display rate to a maximum and then back to normal speed again. Press the forward key  in the pause mode to step forward one field at a time.
- Press the play key  to resume playback.
- Press the current camera key to switch the ATM/POS display on and off.

Press the live key  to switch back to live viewing or press the search key  to switch to the search mode. In both cases, playback stops.

## Protecting or archiving a video recording

1. Press the pause key **II** for longer than one second during playback to mark the beginning of a video segment for protection or archiving.
  - > A dialog window appears.
  - > The time and date of the marker at which the video segment starts is shown.
2. Press the select key **←** to continue playing the video you wish to protect or archive.
3. During playback, press the pause key **II** for longer than one second again to mark the end of the video segment.
  - > A dialog window appears.
  - > The date and time of the beginning and end markers of the video segment is shown.
4. Select **Protect** to protect the marked video from deletion. Select **Archive** to write the marked video segment to a (re)writable disk. Select **Protect & Archive** to do both.

The software required to play a video segment on a PC (the Archive Player) is copied to the disk when a local archive is made. To ensure that this software is present in the Divar, use the supplied CD-ROM to load the latest version of the Archive Player into the Divar.

## Search mode

Press the search key **Search** to open the search menu. Use the search menu to search for stored video recordings.

PLAYBACK SEARCH	
SEARCH EVENT FILTER	ALARM/MOTION
CAMERA	ALL
START TIME	2002-03-14 13:00
END TIME	2002-03-14 14:00
SEARCH DIRECTION	FORWARD
START SEARCH	>
DISK CONTENTS	
EARLIEST TIME	2002-03-14 14:00
LATEST TIME	2002-06-19 20:23
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
FILTER	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

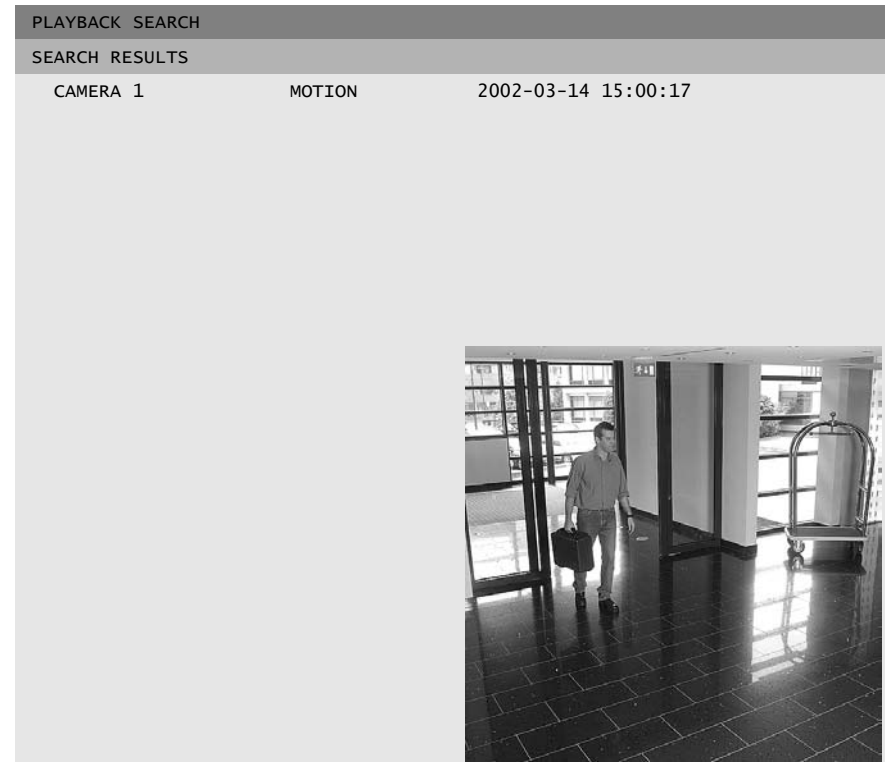
### >> SEARCH CRITERIA

- Set the **Event filter** to search for only alarm events, only motion events or both.
- Set to **None** so that the search is not restricted by events.
- Set to **Smart Motion Search** to search for motion in a designated area of a particular camera picture.
- Set to **ATM/POS** to search for transactions based on the text string you enter.
- Specify the cameras to search for. The selected cameras are shown at the bottom of the menu with a check mark. Press a camera key to change the selection. If **Smart Motion Search** is selected, only a single camera can be selected.
- Select **Forward** to search from start time to end time or **Backward** to search from end time to start time.

- Fill in a time and date from which to start the search.
- Fill in an end time and date to limit the time span of the search.
- If ATM/POS is selected, fill in the text string (16 characters maximum) you wish to search for. The text string is case insensitive.
- Select **Start Search** (or press F2) to initiate the search procedure.
- If **Smart Motion Search** is selected, you must set the motion sensitivity and select an area before the search procedure is initiated.
- Use the arrow keys to adjust the **Motion Sensitivity**. The higher the value, the higher the sensitivity.
- Select **Motion Area** to define the picture area that is to be examined for motion.
- Use the arrow keys to move around the grid. Press F1 to insert a motion detection area. Use the arrow keys to enlarge it.
- Press F1 again to save the area. Press the escape key to cancel and return to grid square selection.
- Press the select key to leave the grid. F2 clears all motion detection areas.
- Select **Start Search** (or press F2) to initiate the search procedure.
- Press the escape key **ESC** to exit the search mode and return to the previous mode.

#### >> SEARCH RESULTS

- The recording fitting the filter and closest to the selected date and time is shown first.
- Use the up/down arrow keys to move through a long list. The selected recording is shown.
- Press the select key **↵** for a full-screen playback of the selected recording.
- Press the search key **Search** during playback to return to the list.
- Press the escape key **ESC** to return to the filter menu.



# Using the menu

## Accessing the menu

The menu gives access to several functions to help you use the unit. Access to some menu items is password protected.

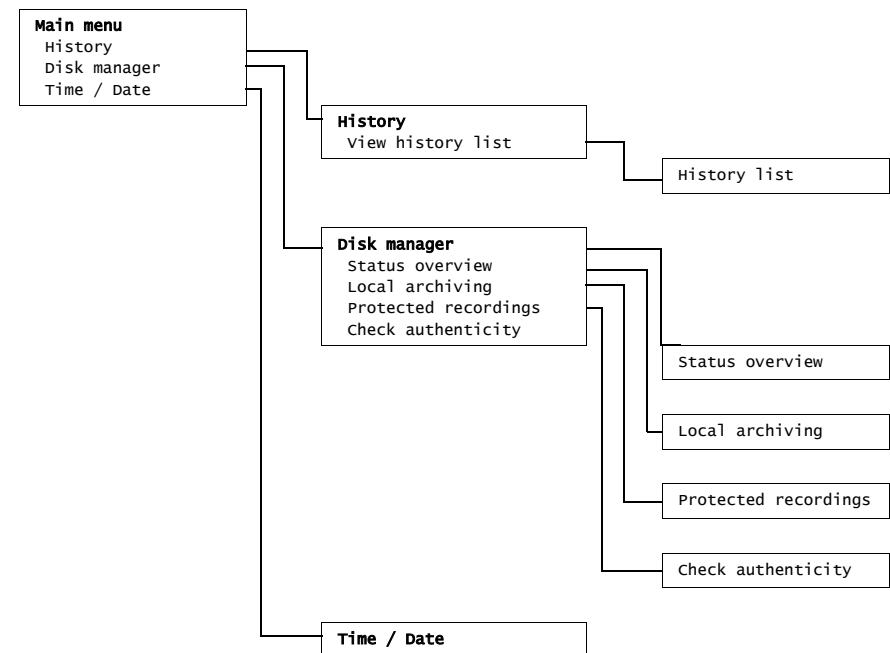
To open the menu:

1. Press the ALT key **ALT** to enter the alternate function mode.  
> The ALT indicator lights.
2. Press the menu **☐** key.  
> The main menu appears full-screen on monitor A.

## Navigating

- Use the arrow keys to move through a menu or list.
- Use the select key **←** to select a submenu or item.
- Use the escape key **ESC** to go back.

## Menu structure



## HISTORY >

The history menu provides a list of all events that have occurred. This list can be filtered to show only those events you wish to see.

### >> HISTORY FILTER

- Fill in the date/time values to restrict the period for viewing events.
- Select **No** for those events that you do not wish to see.

MAIN MENU	
HISTORY	
VIEW HISTORY LIST	>
BEGIN TIME	2002-03-14 13:00
END TIME	2002-06-19 20:23
SHOW	
ALARMS	YES
MOTIONS	YES
NETWORK CONNECTIVITY	YES
ERRORS	YES
EARLIEST TIME	2002-03-14 13:00
LATEST TIME	2002-06-19 20:23

### >> HISTORY LIST

- The latest event is shown first.
- Use the right/left arrow keys to move through a long history list.
- If a date or time has been changed, the original values are also displayed.
- Alarm, motion and video loss events are stored for a maximum of one month.

MAIN MENU	
HISTORY	
VIEW HISTORY LIST	
TIME	EVENT
2002-03-15 13:00:17	VIDEOLOSS

## DISK MANAGER >

The disk manager menu gives access to information on the internal hard disk(s) and any external disks connected. The status of the recorded video and associated data is also accessed via this menu. Archiving is accessed via this menu. Access to some menus may be password protected.

MAIN MENU	
DISK MANAGER	
STATUS OVERVIEW	>
LOCAL ARCHIVING	>
PROTECTED RECORDINGS	>
AUTHENTICITY CHECK	>

### >> STATUS OVERVIEW

- **Disk capacity** shows the total space available in Gigabytes.
- **Used space** shows the total space used by all video recordings including protected recordings.
- **Protect rec usage** shows the space used by protected recordings that cannot be overwritten.
- The displayed **Recording time left** value depends on the recording options that are set, and alarm and motion frequency. The maximum recording time shown depends on the available storage capacity and recording setup.

MAIN MENU	
DISK MANAGER	
STATUS OVERVIEW	
EARLIEST RECORDING	2002-03-14 13:00:17
LATEST RECORDING	2002-06-19 20:23:45
DISK CAPACITY	50 GB
USED SPACE	30 GB
PROTECT REC USAGE	20%
RECORDING TIME LEFT	3 DAYS

### >> LOCAL ARCHIVING

Segments of recorded video can be written to (re)writable disks using the local archiving menu.

- Select **Archive Setup** to check the status of the writer, the progress of the writing, or to erase or format rewritable disks.
- Select **Archive Session** to make a list of the video segments to be archived and to start writing.

MAIN MENU	
DISK MANAGER	
LOCAL ARCHIVING	
ARCHIVE SETUP	>
ARCHIVE SESSION	>

#### >>> ARCHIVE SETUP

- Progress is shown as a percentage of the current activity.
- Select **Cancel Archiving** (or press F2) to stop the current archive session (this can result in an unusable disk).
- Set **Finalize** to **Yes** if the disk is to be finalized after archiving.
- Select **Erase Rewritable** to remove all data from a rewritable disk.
- Free Space shows the free space available on the inserted disk.



#### >>> ARCHIVE SESSION

- Select **View Archive List** to review the selected video segments and to start the archiving procedure.
- Fill in a begin and end, date and time for the video segment you wish to archive.
- Select **Add to Archive List** (or press F2) to place it in the list. All recorded cameras in the time span are selected.
- To remove a video segment from the list, select it with the arrow keys and press F2.
- The archive list is saved until archiving is carried out. Video segments that have been partially overwritten or deleted are removed from the list.
- Select **Start Archiving** to write the video segments to disk.
- If the total size is greater than the disk capacity, then only the first segments that fit are archived. Those segments that are not archived remain in the list so that they can be archived to a new disk.

- Fill in a begin and end, date and time for the video segment you wish to archive. Select **Add to Archive List** (or press F2) to place it in the list. All recorded cameras in the time span are selected.
- Select **Start Archiving** to write the video segments to disk.
- Set **Finalize** to **Yes** if the disk is to be finalized after archiving.
- If a disk is not finalized it can be used for multiple sessions. If finalized, older CD players can read it but new sessions cannot be added anymore.

## >> PROTECTED RECORDINGS

(access may require password)

- Move to a protected recording in the list and press the select key  to play it back.
- Press the escape key  to stop playback and return to the list.


To remove the protection of a recording, move to it in the list and press F2. You must fill in a password (if configured) and confirm before the recording is unprotected.

- Select **Add to Archive List** (or press F1) to place a protected recording in the archive list.

MAIN MENU	
DISK MANAGER	
PROTECTED RECORDINGS	
BEGIN TIME	END TIME
2002-03-14 13:00:17	2002-03-14 14:30:17

## >> AUTHENTICITY CHECK

(access may require password)

- This check verifies that video images and associated data have not been modified.
- Select the period within which the authenticity check runs. The default values are the same as the earliest and latest available recording times.
- Press the escape key  to cancel the check.
- During the check all other front panel keys are disabled.

If the result is **Not OK**, the date and time of the tampered video is displayed.

MAIN MENU	
DISK MANAGER	
AUTHENTICITY CHECK	
BEGIN TIME	2002-03-14 13:00:17
END TIME	2002-03-14 13:00:17
START CHECK	>
PROGRESS	85%
RESULT	NOT OK
DISK CONTENTS	
EARLIEST TIME	2002-03-14 13:00:17
LATEST TIME	2002-03-14 13:00:17

**TIME/DATE >**

- Select a time zone from the list.
- Fill in the actual time and date.
- Select either a 12-hour or a 24-hour clock format.
- Select from three date formats which show either the month (MM), the day (DD) or the year (YYYY) first.
- Set **Daylight Saving** to **Yes** to enable it. Fill in the day, month and time of both change-overs and the offset if it differs from the information associated with your time zone.

MAIN MENU		
TIME/DATE		
TIME ZONE	GMT	+01:00 WEST-EUROPE
TIME FORMAT		24 HOUR
TIME		14:00:17
DATE FORMAT		YYYY-MM-DD
DATE		2002-06-19
SYNCHRONIZE		>
DAYLIGHT SAVING	YES	
START DATE/TIME		LAST SUN MAR 02:00
END DATE/TIME		LAST SUN SEP 03:00
OFFSET		01:00

**>> SYNCHRONIZE**

- Use the **Synchronize** function to set the time of the unit from the time of the network. (Synchronize only works if the Divar time is within 7½ minutes of the server time.) Fill in the IP address of the network time server.
- The time and date of all other connected units are automatically synchronized every hour from the time and date of the unit with DVR ID 1.

# Triggers and alarms

Various types of events can change the way the unit works. These events can be:




- An alarm input signal applied to the unit.
- A motion detection signal from a camera.
- A loss of video from one of the cameras.
- An internal alert from the unit itself.

The way the unit reacts to events depends on how it has been programmed.

An event causes either a trigger or an alarm. A trigger can change the way the unit works but does not require a response from the user. An alarm can also change the way the unit works but, in addition, it usually activates several indicators and requires that the user acknowledges the alarm situation.

The unit can react to an event in any one of the following ways:

## Alarms

- A beeper sounds
- A status message is displayed
- An alarm icon is displayed
- The border around a cameo can change color
- An alarm indicator , , or  flashes
- The **ACK** indicator flashes
- An output relay is activated

## Alarms and Triggers

- The view modes on the monitors change
- A controllable camera is moved to a pre-defined position.
- Recording speed changes
- The unit changes the way it operates via pre-defined profiles.



## Background events

Triggers and alarms can change background tasks that you, as user, may not even notice. Unit responses that are not visible to the user are, for example, a change in recording speed, the activation of the output relay and event logging. A trigger may change the way the camera images are displayed on the monitors without requiring your intervention.




## Alarm inputs

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### If an input causes an alarm



- Monitors A and B can switch to a pre-programmed view mode.
- Monitor A: The border around the displayed cameo is red. The alarm icon is displayed in each cameo. An alarm status message is displayed.
- Monitor B: Sequenced display of pre-programmed cameras.
- The alarm beeper sounds. The alarm  and the  indicators flash.
- A controllable camera might be moved to a pre-defined position.

### Acknowledging an input alarm

1. Press the acknowledge key  to acknowledge the alarm.
  - > The beeper is silent.
  - > The alarm  and  indicators are no longer lit.
  - > The alarm status message disappears.
  - > The last-used view mode is restored.

The alarm icon remains visible as long as the input causing the alarm is active.



If an alarm is not acknowledged, the beeper switches off after the dwell time but the alarm still needs to be acknowledged.

If auto-acknowledge is enabled, the beeper, and the alarm  and  indicators switch off after the dwell time.




## Motion alarm

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### If a motion detection signal causes an alarm



- Monitors A and B can switch to a pre-programmed view mode.
- Monitor A: The border around the camera generating the motion signal is yellow. The motion icon is displayed in the cameo. An alarm status message is displayed.
- Monitor B: Sequenced display of pre-programmed cameras.
- The alarm beeper sounds. The motion  and the  indicators flash.
- A controllable camera might be moved to a pre-defined position.

### Acknowledging a motion alarm

1. Press the acknowledge key  to acknowledge the alarm.
  - > The beeper is silent.
  - > The motion  and  indicators are no longer lit.
  - > The alarm status message disappears.
  - > The last-used view mode is restored.

The motion icon remains visible as long as the input causing the alarm is active.

If an alarm is not acknowledged, the beeper switches off after the dwell time but the alarm still needs to be acknowledged.

If auto-acknowledge is enabled, the beeper, and the motion  and  indicators switch off after the dwell time.



Using motion detection outdoors may cause false alarms because of varying light conditions.

## Video loss alarm




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If the loss of a video signal causes an alarm:

Monitor A or B can be set up to show the video loss signal.



- Monitor A switches to multiscreen view. The lost camera signal is displayed as a black cameo with the video loss message. The border around the camera with the video loss is red. An alarm status message is displayed.
- Monitor B: Sequenced display of cameras that do not have video loss.
- The alarm beeper sounds.
- The video loss  and the  indicators flash.

Acknowledging a video loss alarm

1. Press the acknowledge key  to acknowledge a video loss alarm.
  - > The beeper is silent.
  - > The video loss  and  indicators are no longer lit.
  - > The alarm status message disappears.
  - > The last-used view mode is restored.


If the camera with video loss is visible, the black cameo and the video loss message continue to be displayed as long as there is no video present.

If an alarm is not acknowledged, the beeper switches off after the dwell time but the alarm still needs to be acknowledged.

If auto-acknowledge is enabled, the beeper, and the video loss  and  indicators switch off after the dwell time.

## Multiple alarms

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Monitor A switches to multiscreen view if more than one alarm occurs. The latest alarm status message is always shown. Pressing the acknowledge key  deactivates all alarms.



Bosch Sicherheitssysteme GmbH  
Ludwig-Bölkow-Allee  
85521 Ottobrunn  
Germany  
[www.bosch-sicherheitssysteme.de](http://www.bosch-sicherheitssysteme.de)

Bosch Security Systems B.V.  
P.O. Box 80002  
5600 JB Eindhoven  
The Netherlands  
[www.boschsecuritysystems.com](http://www.boschsecuritysystems.com)

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