Operating manual

GB

DLS-6
DLS-18

CE

Dallmeier electronic

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Introduction

The digital longplay recorders DLS 6 and DLS-18 offer a state of the art alternative to timelapse recorders.
Since the two systems only differ in the number of inputs available, the operating manual refers to „DLS“ only.

As far as the inputs are concerned it should be noted that with DLS-6 the video signals can be looped-through. With DLS-18 this is only possible via a supplementary circuit (BNC distributor).

The DLS has one Longplay track. This track can be used for permanent or contact-controlled recording or for recording with picture comparison.
A separate Alarm track is provided for reliable recording following an alarm signal.

N.B.:

Before using your DLS for the first time, it is very important that you first read the relevant sections of this operating manual.
Follow the instructions for installation and operation described in this manual exactly!
No responsibility can be accepted for incorrect connection or improper use.
For this reason please also observe the safety instructions.

Safety Instructions

The following safety instructions are to be observed at all times during the installation and operation of the DLS.

Protection against unauthorised use

The system memory contains personal data subject to data protection law. Data protection law must always be observed when operating the DLS.

The system (including monitor, mouse etc.) should be installed in a secure room, inaccessible to unauthorised persons.

In the event that you store data from the DLS on a diskette, removeable medium or printout, always keep these in a safe place. Destroy all data as soon as it is no longer needed.

Only pass on information concerning your DLS to selected and authorised persons.

Safe use

Ensure that all technical requirements and conditions for operation are met.

The safe operation of the DLS can only be guaranteed when the housing is closed (radio interference suppression and fire protection). Only those accessories, appliances, or upgrading components recommended and tested by the manufacturer should be used with the DLS.

Target Groups

No specialist technical knowledge is required to operate the DLS. However you should be proficient in the use of a PC-mouse.
The installation, configuration, inspection and repair of the DLS should only be executed by trained and authorised specialist staff.

Precautionary Measures

The system and all related appliances comply with the relevant safety regulations for information technology equipment.

Transport and shipping of the DLS

Always use either the original packing or alternative other suitable packing for the transport of the DLS and any additional components. The packing must provide adequate protection against transport damage and weather.

Protection of the appliance against condensation

If the DLS is brought directly from a cold environment into a warm room, there is a possibility that condensation may form inside the DLS. Therefore always wait for 1 -2 hours (for the condensation to evaporate) before putting the appliance into operation.

Environment

It is important that the DLS is installed in a suitable environment. If the main unit is mounted in a cupboard always ensure that the DLS is adequately ventilated. During operation the surrounding temperature should not exceed 35°C. Ventilation grills should be kept free at all times.

Mains Voltage

Check the mains voltage at the installation site. The mains voltage must be correspond with that of the DLS and any additional components. Under no circumstances should the DLS or any of the system components be operated on any other voltage than the specified rated voltage.

Mains Cable / Mains Adapter

All system components are supplied complete with an approved mains cable and mains adapter. The appliances should only be connected to earthed safety sockets. Wherever possible the DLS should be operated on an interruption-free (backup) power supply.

Safety Socket

The safety sockets used to connect the appliance must be easily accessible at all times.

Data transmission or video cables should never be connected during electrical storms

Under no circumstances should data transmission and video connections be either connected or disconnected during electrical storms.

The appliances should not be moved in operation

In order to avoid malfunction or defects, the DLS should never be moved whilst in operation. Before moving the DLS the system should always “shut down” and the appliance switched off.

Avoid getting objects or liquids inside the appliance

Do not allow any objects or liquids to get inside the appliance as these may cause serious damage e.g. short circuit.

What to do if the appliance has been damaged

If an appliance has been damaged, you can smell burning or see smoke, switch off the appliance immediately and disconnect at the mains (pull out the plug). Contact your service partner.

Only allow inspections, configuration and repairs to be conducted by authorised service personnel

Inspections, configuration and repairs to the interior of the DLS should only be conducted by trained and authorised service personnel. Before opening the housing always disconnect the appliance from the mains power supply.

Do not touch any components inside the appliance

Touching any components inside the appliance is dangerous and can result in damage to the system or endanger your own safety. Always ensure that the appliance is disconnected from the mains power supply and follow the electrostatic safety measures before touching any of the interior components.

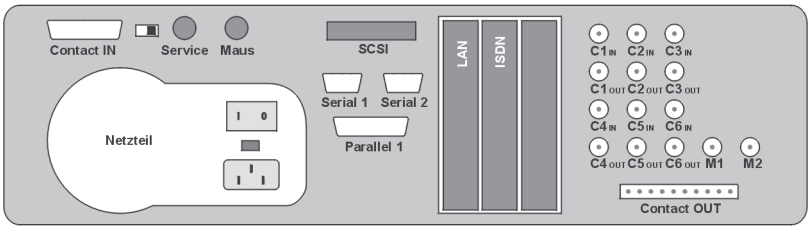
Instructions for the installation of upgrading components

Any upgrading components must comply with the regulations and specifications for safety, electromagnetic compatibility and telecommunication appliances. The use of unsuitable upgrading components may result in either a violation of the regulations or damage to the system. Always check first with your service partner if you have any queries concerning the suitability of upgrading components.

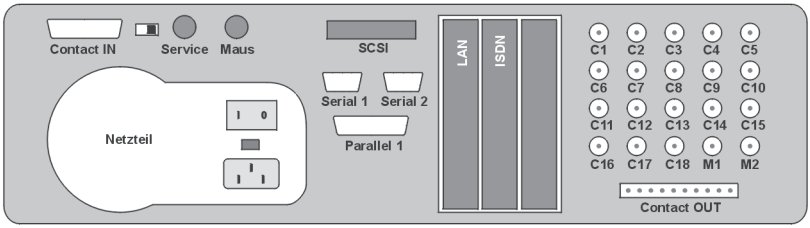
Installation and Configuration instructions for the Installer and administrator

This section of the operating manual contains fully comprehensive instructions for the installation and configuration of the system.
This section can be left out by any „Operator“ not wishing to make any changes to a system which has already been configured.

DLS-6



DLS-18



Note

Loop-through outputs

The loop-through outputs of the DLS-6 are located directly below the corresponding video inputs (C1 IN - C1 OUT etc.).
For the DLS-18 the loop-through output is only possible in connection with a BNC distributor (e.g. T piece). The terminating resistance inside the appliance must be disconnected. This procedure should only be conducted by trained specialist staff.

DLS Connection Panel

Video inputs	DLS uses BNC-sockets C1 - C18 for the 18 video inputs.
Monitor outputs	The BNC-outputs M1 and M2 are FBAS-outputs for one Video Monitor each. In the standard configuration both outputs are in parallel. In the Menu “Options” there is an option to deactivate the Monitor Output 2 when the menus are opened.
Contact IN	Contract-controlled and camera specific recording is via 25-pole Sub-D socket (upper left, Contact IN).
Contact OUT	The exit for the output contacts is via a 10-pole Vago pin socket situated below the BNC connector panel.
Service socket	For service purposes a keyboard can be connected to the “Service” connector. In this situation the input for contact control is deactivated by pressing the button between “Contact IN” and “Service”. This button is consequently also referred to as the “Service Button”.
PS/2-Mouse	The socket for the PS/2-Mouse for direct on-system operation is located next to the Service socket. The menus for playback and setup are displayed on the video monitors (M1/M2).

Warning!
The PS/2-Mouse must be connected before initial system installation so that the mouse is recognised by the system. A subsequently connected PS/2-Mouse will not work!

Serial 1 and 2

Where necessary a data interface DTP 3 can be connected to the RS-232 input “Serial 1”. The input “Serial 2” can be used for the operation of the DLS via PC (e.g. Management System). In cases where data insertion is not required the input “Serial 1” can also be used for PC operation.

SCSI-Port

The SCSI-Port is an optional extra. Via this port it is possible to connect external SCSI-Hard disks for memory expansion or external drives such as a JAZ or MOD-Drive for back-up purposes. The required ID for an external JAZ-Drive (backup) is ID 2.

Slots

There are two free slots for “Network Operation” and “ISDN Operation”. If, in addition to network operation, ISDN operation is also required, the system can be accessed in both ways.
A third slot is available for future extensions / upgrades.

Front panel of the DLS
Description of the LED’s

blue	Power
green	Play / Record
yellow	Alarm
red	Error (Camera failure / HDD defect)

First Operation

The following instructions should be following before putting the DLS into operation for the first time:

a) Check the mains power setting. The switch is located on the rear cabinet of the system between the power on / off switch and the mains connection.

b) Next connect all the cameras to the corresponding inputs - C1 to C6 for DLS-6 and C1 to C18 for DLS-18. The camera input C1 must be occupied.

c) Connect the video monitor to the video output M1. A second monitor can be connected to the video output M2.

d) Ensure that the PS / 2 mouse is connected before the system is switched on. A subsequently connected mouse (once the system has been switched on) will not be recognised by the system and it will not be possible to operate the system.

Once all the components have been connected correctly the system can be turned on. After switching on wait until the system has contacted each video input, after which the picture from Camera 1 will appear on the monitor (approx. 120 sec.).

At the same time the connected cameras are being called up the Info menu will appear with details of the system.

Once contact has been established with all the cameras the video picture from Camera 1 will appear on the video monitor. To gain access to the various menus click the left mouse button once. You will now be requested to enter a password.

Password

For security reasons the DLS has two password levels.

Operator Password

On delivery the Operator Password is “1”. With this password you can gain access to the operator level. At this level no changes to the system parameter configuration are possible.

Administrator Password

On delivery the Administrator Password is “2”. This password provides access to the installation level enabling configuration of all the system parameters.

To be able to configure the system correctly you will need the Administrator Password.

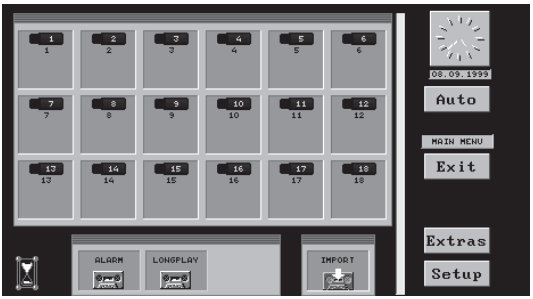
To enter the password, click the relevant key on the virtual keyboard and confirm the entry with “OK”.

Click “Backspace” to delete one character of your entry at a time. Click “ESC” to abort without proceeding to the next level.

TIP
Even if the Operator Password is requested, you may enter the Administrator Password.

Main Menu

Once you have entered your password and confirmed your entry with “OK”, you will enter the Main Menu.



The following functions are available in the Main Menu:

Direct selection of a camera

Position the cursor on one of the camera symbols and click the left mouse button once. The corresponding video picture will appear on the video monitor. The sequencer is ignored.

Transfer of a picture via sequencer

Click the “Auto” button. Depending on the setting in the sequencer the pictures from the relevant cameras will appear on the video monitor in sequence.

Activating the playback menu

Click the cassette symbol of the track you wish to view. This will activate the playback menu for the relevant track.

Import of stored pictures

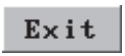
If pictures have already been stored on a diskette or JAZ-drive, via the import function these pictures can be viewed on the monitor again.

Setup

Clicking the “SETUP” button will activate the menus for configuration of all system parameters. Depending on the password used you will either gain access to the Operator or Administrator Setup.

Downloading the Wavelet Converter

For the purpose of observing and editing stored video pictures with standard programmes, the button “Extras” includes an option to download a picture conversion programme. This programme converts pictures from Wavelet to Bitmap format.



Switching off the system

In the past the DLS could be switched off via the Power On / Off button. The new system operates with LINUX and no longer with DOS. Before pressing the Power On / Off button the on-screen button “Exit” should be clicked. This ensures that the operating system of the DLS is properly shut down.
If the system is not shut down correctly a file check will be completed the next time the system is started up. Booting takes longer.

To ensure that the system can only be shut down by authorised personnel, the system requests a password after the “Exit” button has been clicked.

Setup Menus

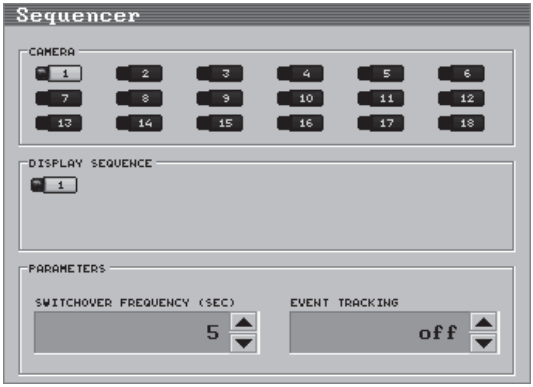
To activate the Administrator Setup, click the button “Setup” in the Main Menu.
If you answered the first password request with the Operator Password, you will gain access to the “Operator Setup”.

To enter the “Administrator Setup” click the “Setup” button a second time.

As already indicated the diversion via the Operator Setup can be avoided if you respond to the first password request with the Administrator Password.

Configuring the sequencer

The function of the sequencer is to display video pictures from the connected video cameras on the monitor in succession at predefined intervals.
To be able to configure the sequencer properly it is important that all cameras are connected to the system. To enter the sequencer menu, click the “Sequencer” button in the “Administrator Setup” menu.



Defining cameras for the sequencer

In the sequencer menu you will find the connected cameras illuminated in the “Camera” panel. Click the cameras you wish to include in the “Display Sequence”. The order is completely up to you.

The selected cameras and their order are displayed in the panel “Display Sequence”.

The selection is only possible from those cameras with an illuminated camera symbol.

Deleting cameras from the Display Sequence

To delete a camera from the sequence simply click the relevant camera symbol in the “Display Sequence” panel.

If there are no camera symbols displayed in “Display Sequence” panel, the sequencer is automatically deactivated.

Disabling cameras for the Display Sequence

In some areas of operation it is important that certain cameras do not appear in the “Display Sequence”. One option of course is to the delete these cameras from the “Display Sequence”. However this does not rule out the risk of the operator (e.g. watchmen) adding these cameras to the sequencer in the Operator Setup.
To avoid this eventuality, click the relevant camera symbol in the camera panel with the right mouse button. In addition to the camera symbol a key will now also appear.

In the Main Menu these camera symbols are also displayed with a key.

The disabling of cameras for the “Display Sequence” is only possible in the Administrator Setup (Administrator Password required). The operator cannot gain access to the restricted camera pictures.

Switchover frequency

The setting “switchover frequency (sec.)” defines the interval in which the video pictures are switched from camera to camera. The value should not be less than 5 seconds, otherwise it is extremely difficult to evaluate the picture.

The setting applies for all the cameras in the “Display Sequence”. However some video pictures may require longer observation, in which case:

When selecting the cameras for the “Display Sequence”, click the relevant camera symbol twice (or more) in succession. The picture will now appear twice in the “Display Sequence”. With a switchover frequency of 5 seconds for example, the picture in question will now be displayed on the monitor for 10 seconds.

Activating event controlled display

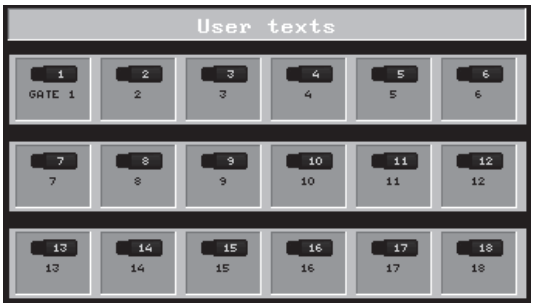
If in the event of a movement being detected by a camera, the picture from this camera should be displayed on the monitor overriding the sequencer, then the setting in the field “event tracking” must be “ON”. The switchover frequency setting determines the length of time the picture will be displayed.

Click the “OK” button to save the settings and return to the Administrator or Operator Setup.

Operator Texts (Camera Texts)

Texts

Each camera symbol carries the number of the corresponding video connection. For better identification of the surveillance areas covered by the cameras, the numbers may be replaced by names.
To change the camera name, click the “Texts” button in the Setup menu.
You will now find yourself in the submenu “Operator Texts” with the camera names.



Position the cursor on the camera name you wish to change and click the left mouse button. A virtual keyboard will now appear on you monitor.

Use the backspace key (“BS”) to erase the existing text.

Once the old text has been erased, enter the new name by clicking the relevant “keys” on your virtual keyboard one after another.
The text may be up to 16 characters long. Your entry will appear below the camera symbol in two rows of 8 characters. For a new line click the key “-”.

If your entry is correct, click “OK” to confirm.
Follow the same procedure for all the remaining cameras.
To abort your entry, click the “ESC” key.

Once you have completed all your changes, click the large “OK” button in the submenu “Operator texts”. You will now return to the Administrator or Operator Setup.

Camera Settings

Cameras

The configuration of the sequencer and entry of camera texts can be completed by both operator and administrator. The camera settings, on the other hand, require the Administrator Password, i.e. can only be executed from the Administrator Setup. Click the “Cameras” button in the “Installation Setup” menu to open the “Camera Settings” menu.

You have most probably already given some thought to which cameras are to be recorded on the Longplay track and / or on the Alarm track.

If all the pictures from one camera are to be recorded on the Longplay track, click the word “Longplay” below the relevant camera symbol. The word will be highlighted. To cancel your entry click the word a second time.

If “Longplay” only is highlighted, then pictures from this camera will not be recorded on the separate Alarm track in the event of an alarm.

If you click the word “Alarm Track” the pictures from these cameras will be recorded on a separate Alarm track in the event of an alarm contact.

As opposed to the Longplay track, the Alarm track is not a ring memory. Once the Alarm track is full or the alarm period is over recording on the Alarm track will end. The pictures cannot be overwritten.

A new alarm can only be recorded after the Alarm track has been re-enabled (erase track).
However this should not be done before the first alarm recording has been analysed.

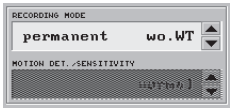
Once you have decided on which track the camera pictures are to be recorded, the “fine tuning” for the recording is done in a submenu.

To open the submenu, position the cursor on the relevant track name in the “Camera Settings” menu and click the right mouse button.

Camera Settings (Submenu)

For both the Longplay and Alarm tracks the following settings can be configured in the submenu:

Recording Mode
Motion detection / Sensitivity
Contact recording mode
Contact recording time
Recording interval “normal” and “alarm”
Resolution “normal” and “alarm”



Recording mode

Setting for recording continuously, by contact or by picture comparison.

If the recording mode appears with the supplement “w/o WT”, this means that the settings for the week timer do not apply.

Motion detection / Sensitivity

In the recording mode “motion detection” the sensitivity for picture comparison can be adjusted according to individual requirement. There are 5 levels of sensitivity to choose from.

Contact recording mode

If you have decided on the recording mode “Contact”, you will need to select the type of contact controlled recording required in the field “Contact recording mode”.

The following recording modes are available:

normal The triggering of a contact causes one picture to be taken. If more than one picture is required per contact, the „timer“ mode must be selected.

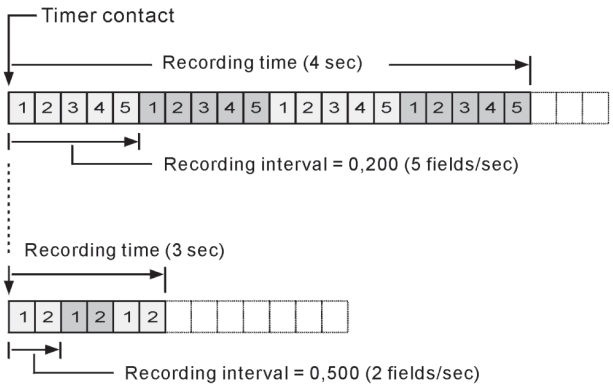
toggle The triggering of a contact starts the recording. If the contact is triggered a second time, the recording ends. The recording can also be interrupted by activating the contact „Reset“.

start The triggering of a contact starts the recording. The recording ends when the contact „Reset“ is activated.

timer The triggering of a contact starts the recording. The duration of the recording depends on the time defined in the field „Contact recording time“. The number of pictures is defined by the settings in the fields „Recording interval - Normal operation“ and „Contact recording time“. The following example illustrates the relationship between the settings:

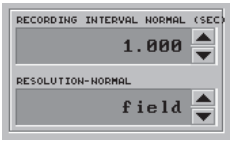
Mode	Recording interval Normal operation	Contact recording time	Pctures per Contact
timer	0,200 sec. = 5 pictures / sec.	4 sec.	20
timer	0,500 sec. = 2 pictures / sec.	3 sec.	6

Example of timer configuration



If the timer contact is activated a second time during timer recording, the recording is extended from this moment by the pre-set recording time in the field “Contact recording time”.

The functions “Save” and “Event” in the field *Contact recording mode* are not available with the DLS. To ensure that your DLS operates properly, always ensure that these functions are inactive.



Recording interval - Normal operation

The recording interval defines the interval between the recording of individual frames. The setting 1.000 (sec.) means, that the recording interval is set at one frame per second. If, for example, 5 pictures per second are required, the setting would need to read 0.200 (sec.).

Recording interval - Alarm

Alarm situations frequently demand a different recording interval. The recording interval selected here applies only during an alarm situation following the triggering of an alarm.

Resolution - Normal / Resolution - Alarm

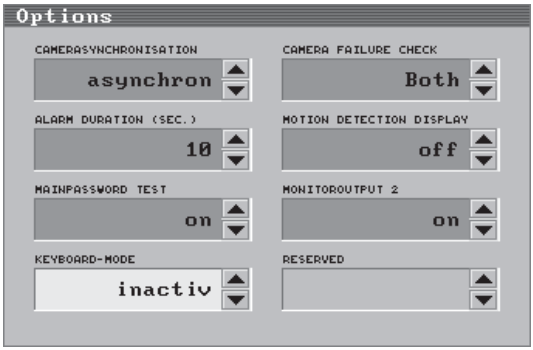
The option between half and full picture is currently under development.

If the settings are to apply for all cameras, click the button “track specific”. If you require different settings for individual cameras then click the button “camera specific” and repeat all the procedure steps for each camera. Confirm each setting with “OK”.

Your settings will only be accepted when you click the large “OK” button in the “Camera settings” menu.

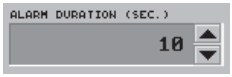
Menu „Options“

To activate the „Options“ menu click the „Options“ button in „Administrator Setup“ menu.



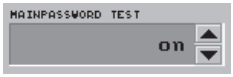
Camera synchronisation

This field determines whether the cameras are to be operated asynchronously or synchronously. Where “synchronous” operation is selected it does not matter whether the cameras are synchronised with linelock or genlock. The system adjusts the relevant internal values automatically.



Alarm duration

The pre-set time (sec.) controls the duration of the recording in the event of an alarm. An alarm is defined as a connection in the global contact “Alarm” (e.g. via “Forceful Entry Detection System” or attack button). The system does not recognise signals from movement detectors (picture comparison) or contact-activated camera recordings as an “Alarm”.

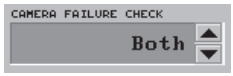


Main password test

It is normally possible to gain access to the menus (Main Menu) by a simple mouse click without a password. In high security areas however, this may not be desired. Consequently a master password request has been integrated. If “ON” a mouse click will result in a request for the Operator or Administrator password.

Keyboard Mode

The keyboard mode must be deactivated with the DLS. If either TAC-18 or TCI-24 are selected in this field, contact-controlled recording is not possible.



Camera failure check

In the event of a camera failure or interruption of the video connection the fault can be reported both acoustically (“sound”) and optically (“display”). A combination of the two is also possible. In situations where the cameras are switched off at certain times it is possible to set the fault signal to “deactive”. The red “Error LED” on the front panel of the DLS will always be active.

Monitor output 2

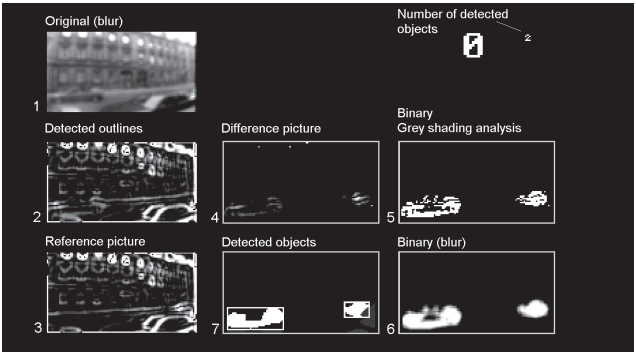
The DLS has two monitor outputs. If you do not wish any menus to appear on Monitor 2 the second output should be switched to “OFF”. Monitor output 2 will then always be switched off, when the DLS menus are open.

Motion detection display

To obtain an exact setting of the sensitivity for picture comparison it is possible to display all phases of the picture comparison. To activate this function set the motion detection display to “ON”.

How picture motion detection display works:

- ⇨ Go to the “Camera Settings” menu and deactivate all the cameras (track names dimmed) except for the camera for which you wish to define the sensitivity for picture comparison.
- ⇨ Quit the menu with “OK”.
- ⇨ Quit the Administrator Setup with “OK” and click either the relevant camera symbol or “AUTO” in the Main Menu.
- ⇨ The following picture will appear on the monitor.



The meaning of the 7 frames of the picture comparison display is as follows:

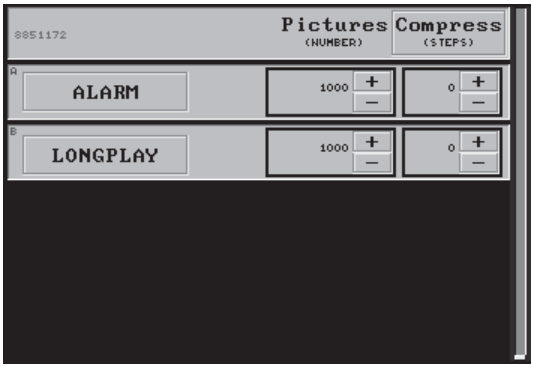
Picture 1	The true original picture is blurred.
Picture 2	The outlines of the original picture are highlighted.
Picture 3	The reference picture is compared with the outlined original picture (Picture 2)
Picture 4	This picture shows the difference between pictures 2 and 3.
Picture 5	Picture 4 is converted to binary and undergoes a grey shading analysis.
Picture 6	The grey shaded picture is converted into binary and blurred.
Picture 7	Picture 7 shows the detected object in a frame at the pre-set level of sensitivity.

The menu in the right corner of the screen also shows the number of objects detected. The large figure is the camera number. 0 indicates camera input 1, 1 is camera input 2 etc..

During normal recording the motion detection display must be set to “OFF”.

Track configuration

Click the „Tracks“ button in the „Administrator Setup“ menu to activate the menu for configuring the tracks.



The length of both the Longplay and Alarm tracks is defined by the number of pictures. In almost all cases the number of pictures is dependent on the required recording period.

Use the buttons „+“ and „-“ to set the number of pictures.
By pressing one of the buttons and holding depressed the number of pictures will change faster.

Example:

The recording period for the Longplay track should be 24 hours in ring.
The required recording rate is 4 pictures / second.

24 hours. = 86.400 seconds
At 4 pictures per second the number of pictures in 24 hours is: 4 x 86.400 = 345.600 pictures.

When calculating the number of pictures it is important to bear in mind whether the cameras are synchronised via genlock or linelock, or whether the cameras are running asynchronously.

The following picture rates are possible:

Genlock max.	25 pictures per second
Linelock max.	12 pictures per second
Asynchronous max.	12 pictures per second

The calculation of the number of pictures is slightly more complicated for recording with picture comparison. In this case a recording is only made when some change to the picture has been identified. First of all you will need to make a rough estimate of the level of activity on the site. A simple example would be the different levels of activity during the day or at night.

Example:
The level of activity during the day is approx. 70%, whereas at night the level falls to approx. 5%.
In this example the day has 10 hours.

At 4 pictures per second this would mean:

Day = 10 hrs = 36.000 sec.	144.000 pictures
70% =	100.800 pictures
Night = 14 hrs = 50.400 sec.	201.600 pictures
5% =	10.080 pictures

The number of pictures for the Longplay track would therefore need to be set at 110.880 pictures.

The number of pictures should always be set somewhat higher than the value calculated.

Levels of Compression

The upper limit for the number of pictures (Alarm and Longplay tracks) ultimately depends on the size of the hard disk. Should you find the desired number of pictures to be unfeasible, it is possible to increase the compression of the picture data. The following table shows the purely arithmetical values of the maximum number of pictures for different hard disk sizes at the different levels of compression. In each case 1 GB has been deducted for the operating system.

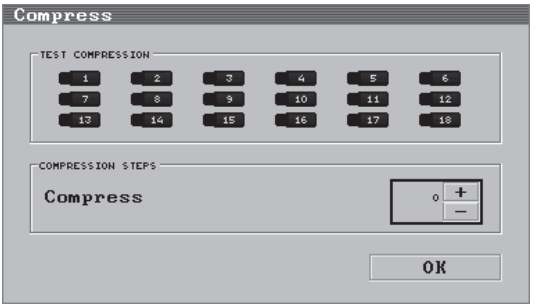
	10/9 GB	16/15 GB	18/17 GB	25/24 GB
45 KB	209.715	349.525	396.129	559.241
36 KB	262.144	436.907	495.161	699.051
28 KB	337.042	561.737	636.635	898.779
20 KB	471.859	786.432	891.290	1.258.291
15 KB	629.146	1.048.576	1.188.386	1.677.722

The values in the left-hand column have been rounded up and show the data length per picture depending on the selected level of compression.
The level of compression is selected with the aid of the buttons „+“ and „-“ and can be set at any value between 0 and 4. 0 is the lowest level of compression and 4 the highest.

The compression setting is track specific and applies for all camera pictures recorded on this track.

The higher the level of compression, the poorer the quality of the recorded pictures.

Since the picture quality is impaired by compression, it is possible to check the quality by clicking the „Compress“ button.



Select the required level of compression in the following submenu. Then click the camera with the picture you wish to check. The picture is then digitalised to the set level of compression and displayed on the screen.

When configuring the compression always bear in mind that the subjective picture quality depends on the recording picture quality. Close-up recordings with few details will appear more clearly than highly detailed wide-angle recordings at the same level of compression.

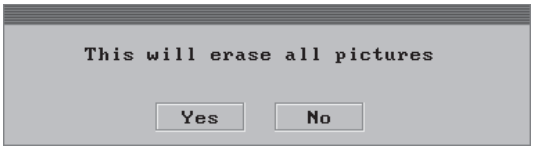
Always check the picture quality before finally settling on a level of compression, paying special attention to those camera pictures particularly critical for evaluation.

Click the „OK“ button to quit the submenu.

Any settings (number of pictures and level of compression) completed in the „Tracks“ menu, will be accepted by clicking the large „OK“ button in the „Tracks“ menu.

If either the number of pictures or the level of compression are changed, the system will reorganise the hard disk. Any existing recorded pictures will be erased during this process.

To ensure that existing recordings are not lost by mistake, a security query appears before the changes are accepted.



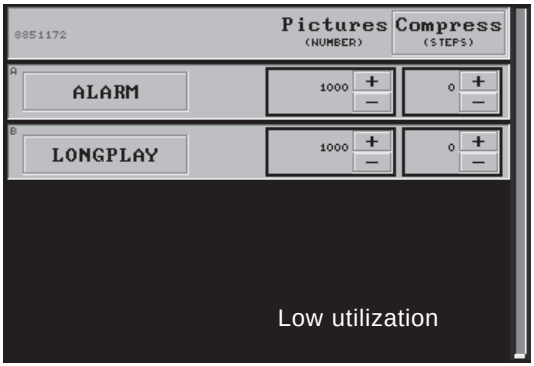
The new configuration will only be accepted if this query is confirmed with „YES“.

If the changes should not become effective, click „NO“ to return to the „Tracks“ menu. Click „Cancel“ to quit this menu without affecting the previous configuration.

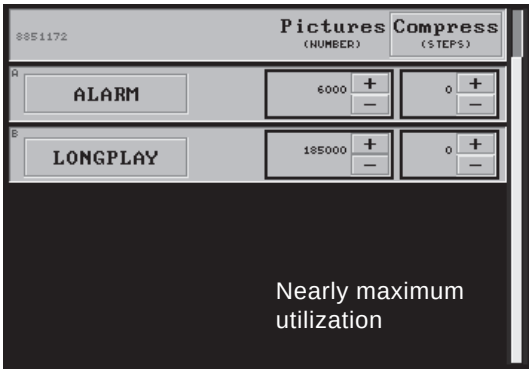
The track configuration procedures described above apply for both Longplay and Alarm tracks. In practice the compression levels 1 or 2 are commonly used for the Longplay track. For the Alarm track 0 is most frequently used, since evaluation demands a high picture quality.

Memory capacity utilization

To give you an indication of the total capacity available when defining the number of pictures in the “Tracks” menu, a visual display of the memory utilization appears in the lower right-hand corner of this menu.



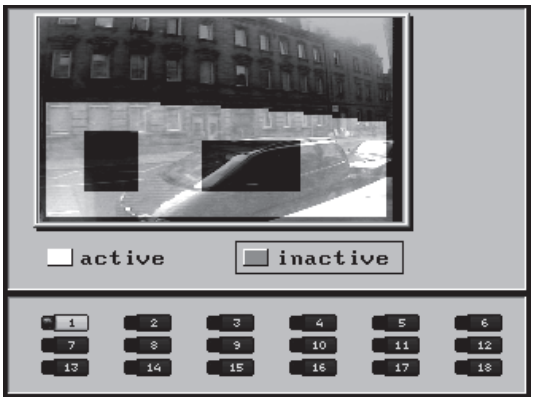
The illuminated area of the vertical bar indicates the memory required for the number of pictures set for the Alarm and Longplay tracks. The dimmed part shows the available memory space. If the number of pictures is increased, e.g. for the Longplay track, the visual display is updated automatically.



Configuration of areas

Areas

If you have selected the recording mode „Picture Comparison“ in the submenu „Camera Settings“ you will need to define active areas for picture comparison in the „Areas“ menu.



When recording with picture comparison, a recording will only be made, when a change is detected in the active area. In the standard configuration the total picture area is active. However in practice it makes sense to concentrate on specific areas of the picture for picture comparison purposes.

Any area configurations must be defined for each camera individually.

Picture areas inactive

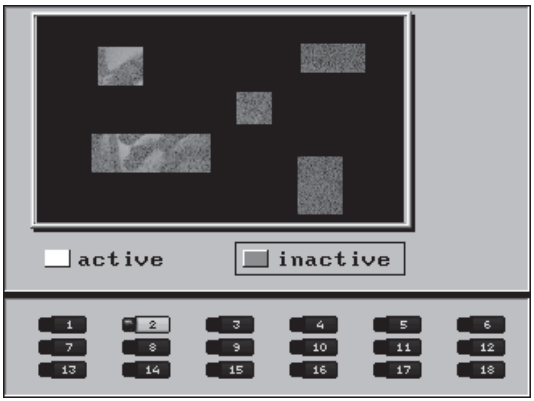
First of all click the camera symbol of a camera selected for picture comparison recording.
An up-to-the minute digitalised picture from this camera will appear on the screen.

Click the grey button for “Inactive”.
Position the cursor within the digitalised picture and press the left mouse button. Hold this key depressed and draw a rectangle by moving the mouse in the direction required. Once the square has reached the required size, let go of the left mouse button. The inactive area is dimmed.

Picture area active

If only smaller areas are to be taken into consideration for picture evaluation, we recommend that the total picture area is “deactivated” first, following the instructions above.
Once the total picture area is “inactive”, click the bright button “Active”.
You can now define the active areas within the picture. The procedure is the same as described above.

If the selected active area is too small, the warning “Active area(s) too small. Please correct.” will appear.

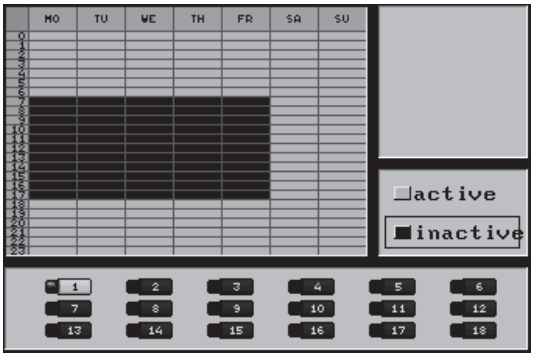


Once you have defined the areas for all the relevant cameras, click the large “OK” button to accept and activate the configuration.
If you do not wish to accept the configuration, click “Cancel”. Only those settings accepted prior to entering the “Areas” menu will go active.

Setting the week timer

Timer

Depending on the area of application and location of the cameras it may be necessary to deactivate the evaluation of the video signals from some or all the cameras at certain times. Active areas are illuminated, the inactive areas are dimmed.
In the standard configuration there are no inactive periods defined.



The timer can be set for each camera individually. You will therefore first of all need to select a camera you wish to set. To do so click the relevant camera symbol.

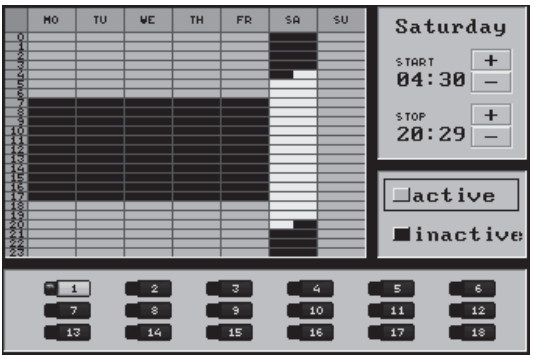
Defining inactive time periods

Click the dark button for “inactive”.
Click a desired time field once, a dark rectangle will appear. This rectangle represents the smallest adjustable time span of 15 minutes.

To define a larger time span, position the cursor at the required starting time. Press the left mouse button and hold depressed. Now draw the rectangle over the time period during which recording should be inactive.

With this function the smallest adjustable time interval is one hour. However it is possible to subsequently extend or reduce the inactive period in 15 minute steps.

For an exact setting position the cursor on the active time period of the day, during which you wish to define an inactive time period. Click the right mouse button once. The area will now appear white and in the right corner a timer will appear next to the week-by-week calendar. The time period can be increased or decreased using the “+” / “-” keys.



This adjustment cannot be performed within already defined inactive time periods. It is however possible to define smaller active periods during inactive periods exactly.
To do so, click the “Active” panel and then define a small active field by clicking the left mouse button once.

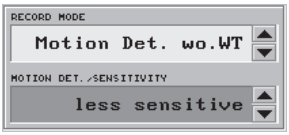
The active time span can be adjusted by clicking the right mouse button in the active field and then proceeding in the same way as described above.

Defining active time periods

The procedure for defining active time periods is the same as for inactive periods with the exception of the exact setting of start and stop times using the timer panel as described above. It is however possible to click an active area with the right mouse button and then increase / decrease this area.

Once you have completed the settings for all the relevant cameras, click the “OK” button to accept and activate your settings.
If you click “Cancel” your settings will be ignored.

When operating with the week timer always ensure that the setting in the field “Recording mode” (Camera settings menu) does not have the supplement “w/o WT”. If this is the case, any settings for the week timer will be ignored.



Important notice:

The following section contains instructions for saving your system configuration on diskette and also for re-importing the configuration onto the system, should this be necessary.

However, parameter configurations from the new system DLS cannot be transferred onto systems from the “old” generation. A transfer in the opposite direction, i.e. from older systems onto new systems is also not possible.

This is due to the fact that the “old” and “new” generations work with different operating systems.

Menu „Service“

Click the „Service“ button in the menu „Administrator Setup“ to enter the „Service“ menu.

Parameter – Export

For the purpose of configuring system parameters according to individual customer requirements or “archiving” the system setup configuration, the parameter file can be saved on a diskette via the “Export” function (diskette in system floppy disk drive).

Parameter – Import

System parameters which have been edited on a PC can be loaded onto the recording system and updated using the “Import” function (diskette in system floppy disk drive).

Parameter - Default

Clicking the button “Default” will cause the parameter file configuration to be reinitialised - i.e. the system configuration will be as on delivery.

Software - Update

Via this function software updates can be loaded as and where required.

Extensions - Code

The recording system DLS 18 is supplied with 12 active video inputs. If at a later date a further 6 inputs are required, these are activated via a code in connection with the S-180-DMS software. You will receive the activation code for the additional inputs when you order the upgrade. To order the upgrade you will need the serial number of your system. Network and ISDN upgrades are also activated via code. The serial number of the system is also required in this case.

If your DLS is equipped with a network or ISDN card some adjustments to the Network Setup will be necessary.

Network - Import

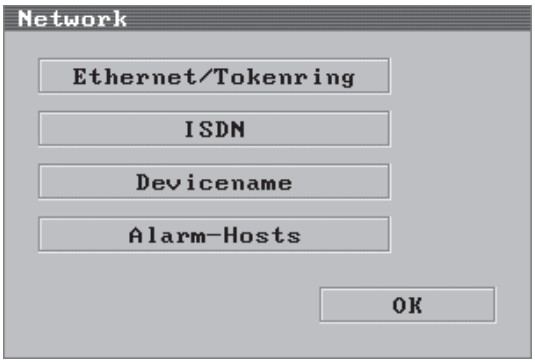
In the same way as for the system parameters, the setup for network configuration of the recording system can be completed on PC and then imported on to the system.

Network - Export

Via the “Export” function the system configuration for network operation can be saved on a diskette. Data export is also necessary, if the data are to be edited on a PC.

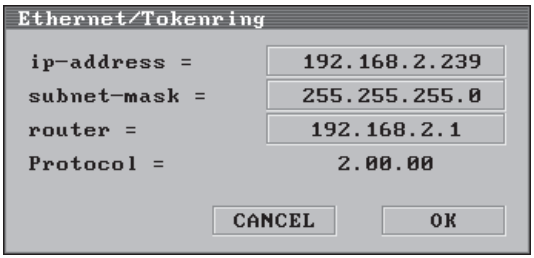
Network - Setup

Click the button „Setup“ to activate the menus for network configuration.



Ethernet/Tokenring

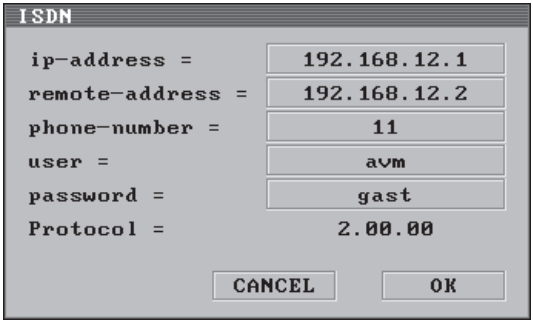
Ethernet / Tokenring



IP-address:	Recording system address under which the system can be contacted.
subnet-mask:	Filter for the IP-Address. xxx.xxx.xxx.0 means that only the first 3 groups of the IP address will be evaluated. In the above example the digits 192.168.2.
router:	Gateway-Address for the Router. Routers are usually implemented in surveillance systems consisting of several recording systems accessed and operated via ISDN. For a single system an ISDN card will suffice.
Protocol:	Internal number for the manufacturer.

ISDN

ISDN



IP-address:	Recording system (DLS) address
remote-address:	Network-PC address (CPU)
phone-number:	Telephone number (MSN) under which the DLS can be contacted locally. The telephone number must always be entered without area code.
user:	Password / user name for data transmission. Not to be confused with DLS Operator Password.
password:	Password for ISDN access
channel / bundle:	Setting of the B-Channel for transmission. It is also possible to bundle B1 and B2
Protocol:	Internal number for the manufacturer

Devicename

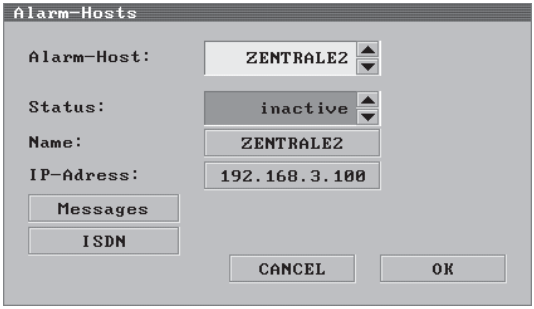
Devicename

Since names are easier to remember than numbers, it is possible to give the system a name (alias), which will be linked to the system IP address.
It is important that the name does not include any spaces.

Right: e.g. “david123”
Wrong: e.g. “david 123”

Alarm-Hosts

Alarm Hosts



ZENTRALE1

Alarm-Host

”Alarm-Host” is the name given to the alarm receiving station (e.g. PView-Station). Use the arrow keys to switch between the various hosts.
To aid the organisation of your system, it is possible to designate a name for the Alarm-Host.

ZENTRALE1

Name

To change the host-name click the button next to “Name”. Use the virtual keyboard to enter your name. For example you may wish to name the Alarm-Host “Office”, if the receiving station (PC or PVS) is located in an office.

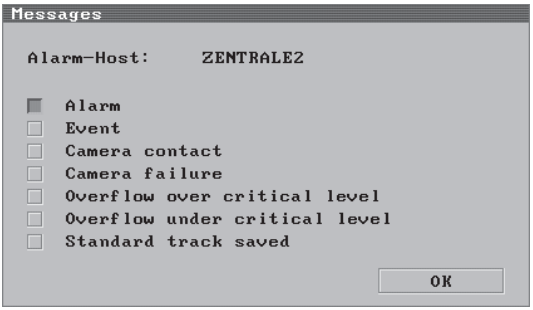
192.168.100.200

IP-Address

To ensure that the receiving station (Alarm-Host) can be contacted by the recording system, it is important that you enter the correct IP address for the Alarm-Host (PC or PVS). Click the button located next to “IP-Address” and key in the IP-Address.

Messages

For each Alarm-Host you will need to define the function which will cause an alarm report to be transferred to this host. The selection options are to be found in the selection menu. Click the button “Messages”.



Click the relevant item in the menu to define the occurrence to be transferred to the Alarm-Host in an on-screeen message.
A different item may be selected for each Alarm-Host.

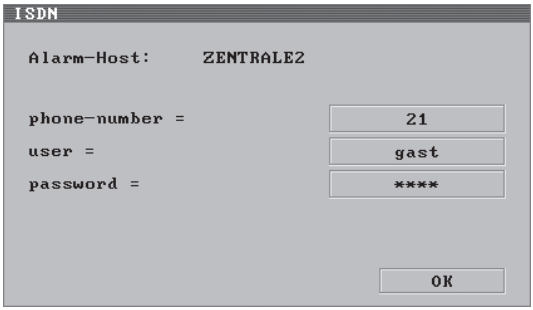
Status

Once you have completed all the configurations described above, you can decide in the field “Status” whether the transmission of the message to the relevant “Alarm-Host” should be activated or deactivated.
A message can only be transmitted, when the status field is set to “active”.

ISDN

ISDN

Provided all the above configurations have been completed correctly it is possible to transmit a message via network.
However if the contact between recording system and Alarm-Host is via ISDN, some further configuration must be completed in the submenu “ISDN”.



phone-number: Telephone number, under which the Alarm-Host (PC or PVS) can be contacted.

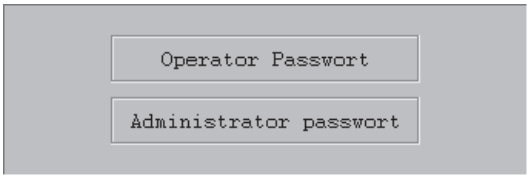
user: Password / user name for the Alarm-Host.

password: Password required to be granted access to Alarm-Host.

The configuration in the submenu “ISDN” is not necessary if the recording system and Alarm-Host (PC or PVS) are only being operated in a network.

Changing the password

The Operator and Administrator Passwords should not be changed before the system has been fully configured.
Click the “Password” button and a menu with the selection options “Operator Password” and “Administrator Password” will appear.



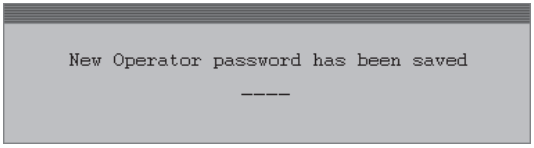
Click the option you require. A virtual keyboard will now appear together with a request to enter the new password.

Using the mouse enter your new password and then click OK.

Repeat your new password and click “OK” again.

Use backspace “BS” to delete any characters of your entry.
Click the “ESC” key to abort without changing the password.

Once you have repeated the new password and confirmed with “OK” an on-screen message will appear indicating that the new password has been accepted.



Click the left mouse button to return to the selection menu.

Click the large “OK” button to return to the “Administrator Setup” or “Operator Setup” menu.

The above procedure applies for changing both the Operator and Administrator Passwords.

If you select “Password” in the “Operator Setup”, you will only be able to change the Operator Password.

IMPORTANT NOTICE!
Once you have changed the passwords it is very important that you do not forget them. If you do forget your passwords, you will need to contact the manufacturer for assistance.

Changing the menu language

The menus of the DLS can be adapted to the language of the country in which the system is being operated.

Click the button „Language“ to change the language.

German and English are the two standard languages. French, Italian Spanish and Dutch are also available on request.

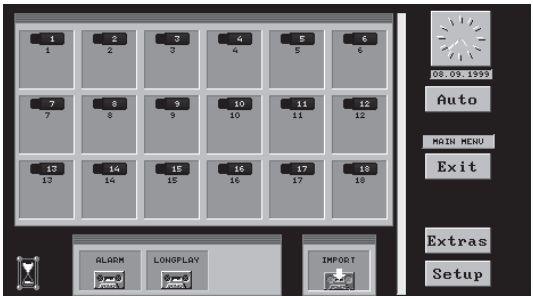
Info Menu

Click the “Info” button. A window will now appear in which all the connected cameras are illuminated. In addition to the system name you will also find details of the software version and serial number of your system.

Click the left mouse button to return to the respective Setup menu.

Start recording

Once you have completed the configuration, quit the Setup menu by clicking the large „OK“ button.
You are now in the Main Menu.



Recording will not begin until you have quit the Main Menu.

Before quitting the Main Menu you will need to decide whether the picture from one selected camera is to be transfered to the video monitor or whether pictures from all the cameras defined in the sequencer are to be transfered to the monitor in sequence.

If no entry is made the DLS will automatically go into sequencer operation „Auto“ once the hour-glass has run out.

Should you wish the video picture from only one camera to appear on your monitor, click the relevant camera symbol. If the pictures should appear in sequence click the „Auto“ button.

Do not click the „Exit“ button if you wish to switch to recording mode.

Operating and Configuration instructions for the Operator

This section of the operating manual contains instructions for the operation and configuration of the system with the Operator Password.

Playback of stored pictures

To playback and analyse video pictures select the track you wish to evaluate in the Main Menu.
You will now find yourself in playback mode. Regardless of which track you select for playback, the controls in the playback mode are always the same.

The buttons in the lower menu bar have the following meaning:

 Reverse playback

 Single frame reverse playback

 Menu bar visible / invisible / stop

 Single frame forward playback

 Forward playback

Click the right mouse button once and both menu bars will be masked. Click the right mouse button again for the menu bars to be restored.

Playback speed

The playback speed can be adjusted via the “Pitch” control during both forward and reverse playback. The control button is located on the left-hand side in the upper menu bar.

Position the cursor on the highlighted, vertical bar in the control panel. Press the left mouse button and hold depressed. Sliding the bar to the left will reduce the playback speed. To increase the playback speed slide the bar to the right.

Once you have found the playback speed you require, let go of the mouse button.

Fast picture search

The Longplay track usually contains recordings covering a period of several days. The picture scroll in the upper menu bar will help you to locate a specific time period on the Longplay track quickly.

Position the cursor on the highlighted, vertical bar in the control panel. Press the left mouse button and hold depressed. The small bar can now be moved left or right.

If the bar is at the far left, this corresponds with the position of the oldest available picture on the recording track.
If the bar is at the far right, this shows the position of the most recently recorded picture.

The video picture is faded out whenever the bar is adjusted.
Date and time in the upper menu bar are updated accordingly.

Once you have found the time period you require, let go of the mouse button. The selected video picture will appear on the monitor.

Camera Filter

On both the Longplay and Alarm tracks all the designated cameras are recorded in sequence. During “normal” playback the video pictures switch from one camera to the next. For evaluation purposes, however, it makes sense to observe successive pictures from only one camera.

To select this option click the “Extras” button in the lower menu bar of the playback menu.

Click the camera symbols. With each click the symbol will either be illuminated or dimmed. If you wish to define only one camera for playback, then the symbol for this camera only should be illuminated.

Once you have selected the relevant camera click the “OK” button to return to playback mode. It is now only possible to playback video pictures from the selected camera.

Exporting pictures or picture sequences

In particular video pictures from the Alarm track should always be stored on an external medium, since the Alarm track is not active for a new alarm until the track has been erased (“erase track”). However the video pictures from the Longplay track may also be significant for evaluation purposes. Since the Longplay track is on a ring memory, the oldest pictures are constantly overwritten.

Exporting single pictures onto diskette

In playback mode select the picture you wish to export. The picture must be visible in the playback mode.

Next click the “Extras” button in the lower menu bar. You will now find yourself in the submenu “Filter Criteria”.

Insert a blank, formatted diskette in the DLS floppy disk drive.

Click the floppy disk drive symbol in the submenu “Filter Criteria”.

Using the virtual keyboard to enter the filename for the picture.

The filename is limited to 8 characters.
The filename must not include any blank spaces.
Right: frame01 Wrong: frame 01

Click “OK” to confirm your entry. The selected picture will be saved on the diskette. You will automatically return to the playback menu and may select your next picture.

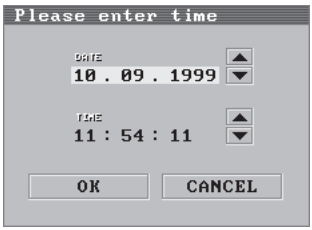
All the pictures will be saved in wavelet format. It is therefore very important that you read the section “Wavelet Converter”.

Storing picture sequences on video tape

The system is equipped with a feature enabling you to define a time period, thus making it possible to store and archive complete picture sequences.
Click the “Extras” button in playback mode. You will now find yourself in the submenu “Camera Filter”.

Now select the camera(s) with the picture sequences you wish to archive, by clicking the corresponding camera symbol(s). The selected camera(s) can be identified by the illuminated camera symbol(s).

Now click in the field next to the panel “time period from:”.



In the next menu set the date and starting time (oldest picture to be transfered).

Click the date. Adjust the date using the “arrow up” and “arrow down” keys.

To set the time, click the hours, minutes or seconds display. The relevant segment of the display is illuminated. Use the “arrow up” and “arrow down” keys to set the starting time.

Confirm with “OK”.

Now click the field next to the panel “time period until:” and adjust the date and time in the same way as described above.

Before adjustment the date and time of the last recorded picture are displayed in this field.

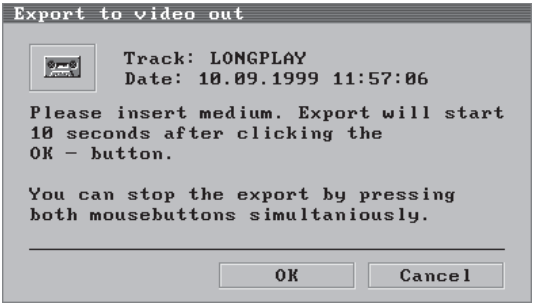
Confirm with “OK”.

Before transferring always check that the video recorder is properly connected. The video input of the recorder should be connected to the loop-through output of the monitor.

Monitor Output 2 of the DLS can only be used if the setting for Monitor Output 2 in the “Options” menu is “On”. The operator will be able to determine the setting when activating the menus. If Monitor Output 2 is dark, the setting is “Off”. If the setting is “On” the menus will also appear on Monitor Output 2.

The setting cannot be adjusted with the Operator Password.

Click the button with the cassette symbol.
Further instructions are provided in the menu which then appears on the monitor.
Insert a video tape in the recorder.



Then click the “OK” button.
Start recording.
Follow the on-screen instructions on your monitor.

The message that data transfer can be aborted by pressing both mouse buttons simultaneously applies only when transmission has already commenced.

Data transfer onto video tape is completed at maximum playback speed. The PITCH control setting is irrelevant.

It is possible to transfer a picture sequence onto video tape at a lower speed by recording directly from playback mode. However, if you wish to transfer the video pictures complete with date and time the menu bars will also be visible in the picture. Clicking the right mouse button will fade out the menu bar. This means that details of date and time are also no longer visible.

Transfer onto external digital media

The transfer of data from the DLS on to a JAZ Drive or MOD is only possible with an SCSI Interface (option).

Select the cameras and time period for the pictures you wish to transfer in the menu “Filter Criteria”, as described in the previous section.

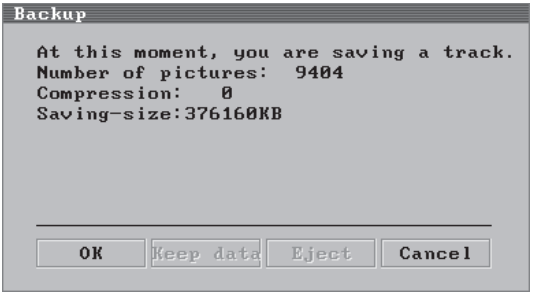
Then click the button with the cassette symbols (DSS).

Using the virtual keyboard, enter a track name of your choice.

The term “Track name” does not refer to the recording track (Longplay or Alarm) but to the picture sequence to be transferred - also a track.

Confirm your entry with “OK”.

The subsequent menu contains further information concerning the data transfer.



Check that a medium (JAZ or MOD) with sufficient memory capacity is inserted in the disk drive.

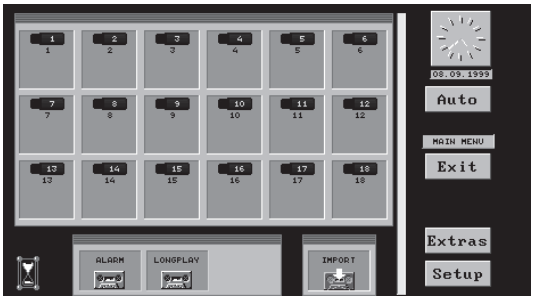
Click “OK”.

Depending on the size of the picture sequence selected, the transmission process may take several minutes.

Playing back exported pictures

Any pictures, which have been transferred onto diskette, can be reloaded onto the DLS for viewing. This is accomplished via the “Import” function.

First of all go into the Main Menu.



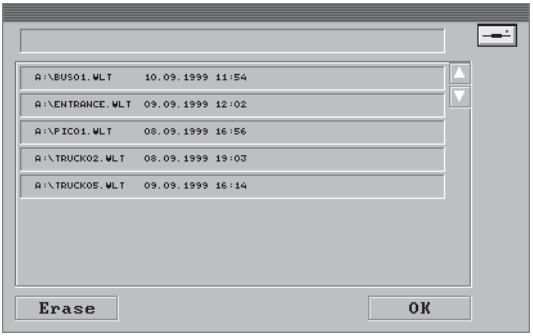
Click the symbol for “Import”.

If you wish to abort the process, click the grey arrow located next to the diskette symbol with the left mouse button.

Insert a diskette containing pictures which have already been exported and click the button for the floppy disk drive in the menu.

A contents list now appears with details of the pictures saved on the diskette including the picture name, date and time.

From the list select (click) the picture you wish to view on the video monitor.



The function “Erase” applies for all pictures on the diskette. It is not possible to erase single video pictures.

It is not possible to reload and view any pictures which have been edited.

Picture sequences from digital media such as JAZ-Drive or MOD can only be imported if your DLS is equipped with an SCSI-Port (option). In this case select the medium by clicking the “DDS” button.

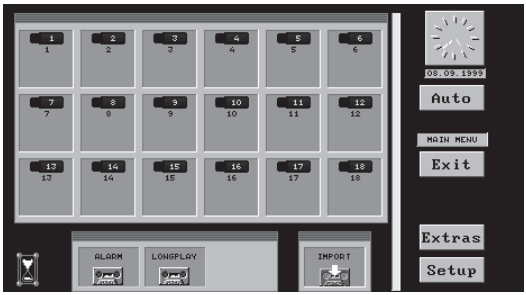
All the subsequent steps are the same as for playback from a diskette. Using the playback menu it is now possible to view the complete transferred track.

Operator Setup

Some of the configuration steps already described in the Administrator Setup can also be performed and amended by the operator. In this section only the setup path is described. For more detailed setup instructions refer to the relevant section of the Administrator Setup.

To activate to the Operator Setup:

Click the left mouse button to enter the Main Menu (DLS in recording mode, Live picture).



Click the „Setup“ button.

Enter Operator Password and confirm with „OK“.

You are now in the „Operator Setup menu".

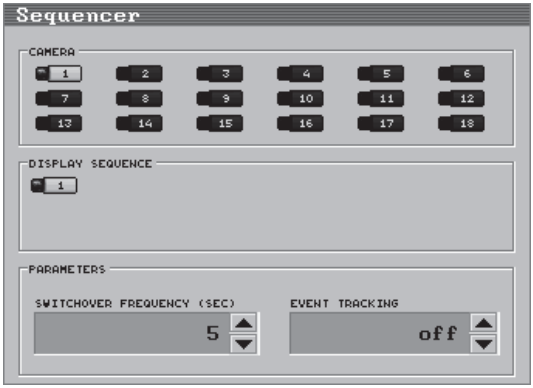
The following items can be configured in the Operator Setup:

Configuring the sequencer.
Changing Camera Texts.
Changing the timer.
Changing the Operator Password.
Selecting the menu language.
Setting date and time.

Sequencer

Configuring the sequencer

Click the “Sequencer” button in the Operator Setup.



To define a camera for sequencer operation click a illuminated camera symbol in the *Camera* panel.

A click to the camera symbol in the panel *Display Sequence* will delete this camera from sequencer operation.

The setting in the field “switchover frequency” defines the sequencer cycle in seconds.

If the relevant video picture should be transferred to the monitor immediately an event is detected, the field “Event transfer” must be set to “ON”.

Texts

Changing Camera Texts

Click the “Texts” button in the Operator Setup.

Position the cursor on the camera text (below the camera symbol) you wish to amend.

Use the virtual keyboard to enter the new text and confirm with “OK”.

The text may be max. 2 x 8 = 16 characters long. Click the “-” key for a new line.

The text will appear in both the Main Menu and the saved picture.

Click the “Backspace” key to delete any characters no longer needed.

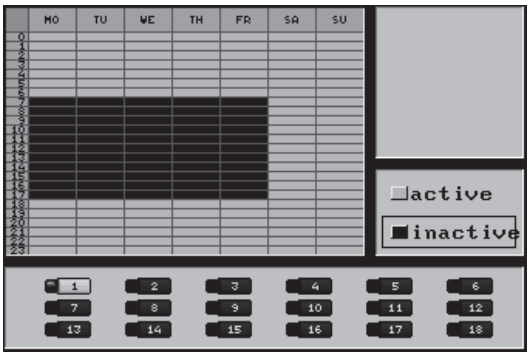
Click the “ESC” key to abort your entry without changing the text.

Timer

Setting the timer

With the aid of the timer it is possible to define the times at which the DLS should be ready to record (active) and the times when no evaluation or recording is required (inactive).

Click the “Timer” button in the Operator Setup.



In the standard configuration the setting is “Active”.

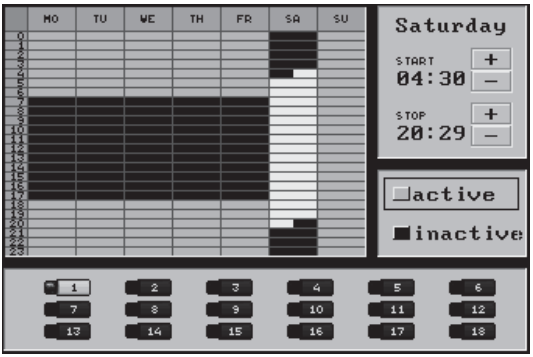
Click the field “Inactive”.

By clicking the left mouse button and holding depressed a rectangle can be drawn within a time period. As soon as you let go of the mouse button the marked area will be dimmed.

The dimmed areas of the week timer indicate the inactive periods.

The smallest time period marked by a rectangle is 1 hour. The smallest time unit is 15 minutes. To set a 15 minute unit click the desired time position once with left mouse button, without drawing a rectangle.

To define a specific time period position the cursor in an active time period and click once with the right mouse button.



Using the “+” and “-” keys set the inactive time period in the timer.

Inactive periods can be reactivated by clicking “active” and drawing a rectangle over the inactive period as described for “inactive” above.

The timer must be set for each camera individually.

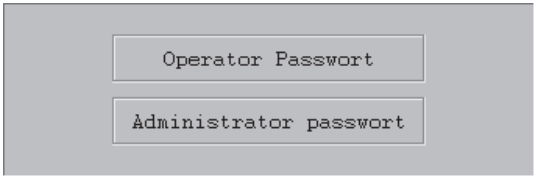
Once you have completed the setting for all cameras, click the large “OK” button to leave the menu.

If you click “Abort” your settings will be ignored.

Password

Changing the Operator Password

Click the “Password” button in the Operator Setup. In the selection menu click “Operator Password”.



Type your new password on the virtual keyboard and confirm your entry with “OK”.

Repeat your new password and confirm the entry with “OK”

To quit the selection menu click the left mouse button. When quitting the selection menu it is important that the cursor is positioned on the grey background and not on any of the keys.

Changing the menu language

Click the “Language” button in the Operator Setup to change the menu language.

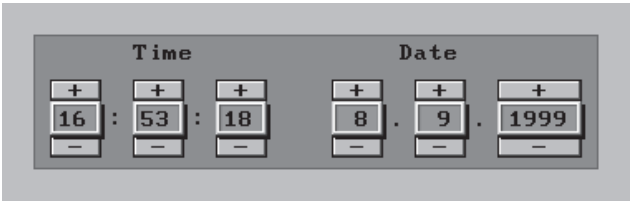
Continue to click the “Language” button until the menu language you require appears.

Setting date and time

Click the clock symbol in either the Main Menu or the Operator Setup to activate the menu for setting date and time.

Click the “+” / “-” keys to adjust date and time.

Click the large “OK” button to confirm your entry.

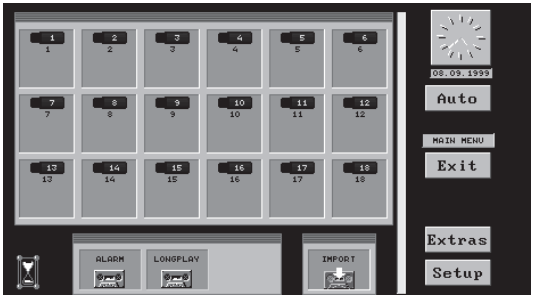


Wavelet Converter “PConvert”

The recording system DLS uses the Wavelet method for picture compression. Any pictures „exported“ onto diskette are saved in this format. To enable you to analyse and where necessary edit stored pictures with standard programmes, via the „Extras“ button a picture conversion programme can be downloaded from the DLS. This programme converts the video from Wavelet to Bitmap format.

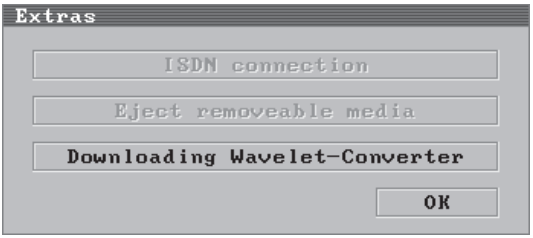
Insert a blank, formatted diskette in the DLS floppy disk drive.

In recording mode (live picture on the monitor), click the left mouse button once to activate the Main Menu.



Click the „Extras“ button in the Main Menu.

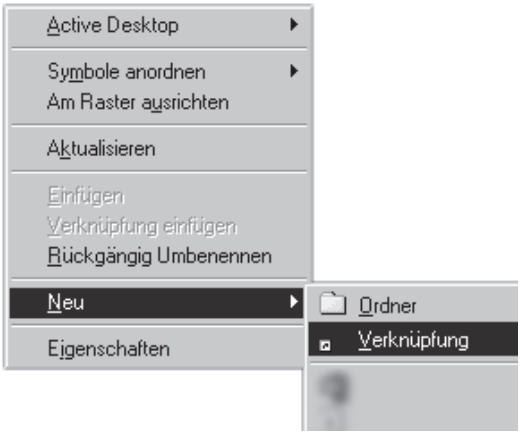
Select the menu item „Download Wavelet Converter“.



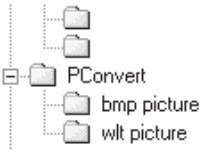
Once the programme has been downloaded remove the diskette from the DLS floppy disk drive.

Copy the programme onto your PC.

Before first use you should install a link for the PConvert exe-file on your desktop. Click a free space on your desktop with the right mouse button. Go to „New“ in the drop down menu and then right to „Link“ and click with the left mouse button.



In the next menu, click „Search“ to select the path containing the „PConvert.exe“ file. Mark this file and finish the link with „Open“, „Next“ and „Complete“. The PConvert icon appears on the desktop.

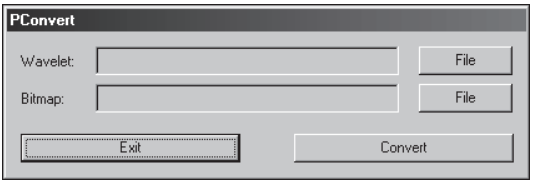


Before using the programme one small tip. Create two files in your file directory. Copy the pictures downloaded from the DLS into the first file (e.g. “wlt pictures”). The second file (e.g. “bmp pictures”) can be used to save the picture material converted into bitmap format. The wlt pictures can also be converted directly from the diskette without being saved on the hard disk first. However the bmp pictures have to be saved on the hard disk as the bmp files are much larger than Wavelet files.

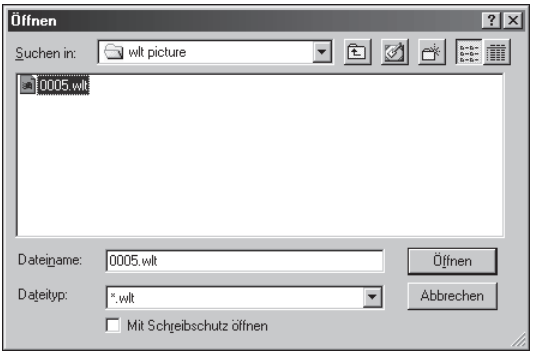
Easier still, create one file for both „wlt“ and „bmp“ pictures. On conversion the file directory for the wlt pictures will automatically be adopted for your bmp pictures.

Converting Wavelet pictures

1 Double click the icon to start the programme.



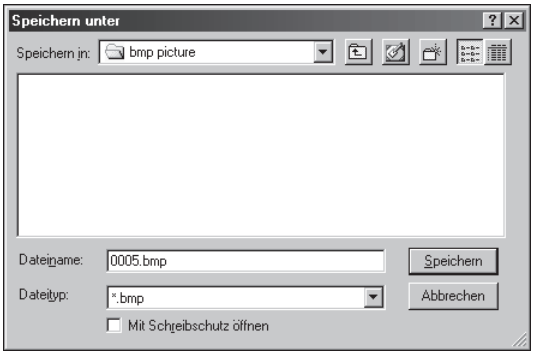
2 Click the “File” button next to the field “Wavelet”.
In the next window select the picture to be converted from wlt to bmp from the relevant directory.



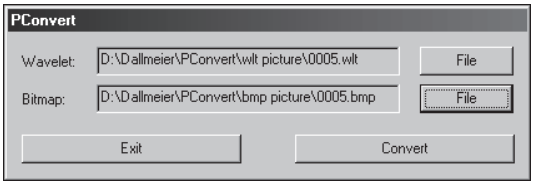
3 **S**elect the required picture and click “Open”. The directory path of the selected picture will now appear in the field “Wavelet”.

4 Click the “File” button next to the field “Bitmap”.

5 Select the file in which the converted picture is to be saved.



6 Enter the required filename for the bitmap picture in the field “File Name” and then click the “Save” button.



7 To start the conversion process click the “Convert” button. On completion the message “Picture converted” appears on the screen. The converted Wavelet picture can now be found in your own file for Bitmap pictures.

Technical Data
and
Contact Layout

External Contacts (Contact IN)

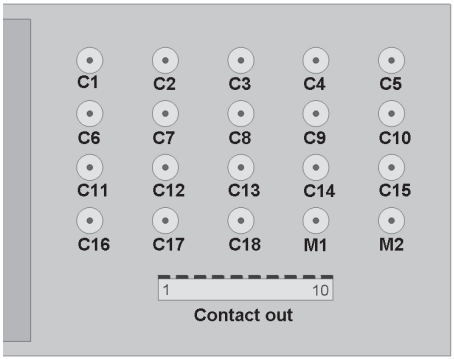
Cable: 25-pole
Plug / Socket: D-SUB
Maximum length: 100m

PIN	Function
1	Standby / Start Recording
2	Ground
3	Contact Recording Cam 18
4	Contact Recording Cam 16
5	Contact Recording Cam 14
6	Contact Recording Cam 12
7	Contact Recording Cam 10
8	Contact Recording Cam 8
9	General contact „Lonplay track“
10	Contact Recording Cam 5
11	Alarm / Start Recording Alarm track
12	Contact Recording Cam 2
13	General contact „Alarm track“
14	- - -
15	- - -
16	Contact Recording Cam 17
17	Contact Recording Cam 15
18	Contact Recording Cam 13
19	Contact Recording Cam 11
20	Contact Recording Cam 9
21	Contact Recording Cam 7
22	Contact Recording Cam 6
23	Contact Recording Cam 4
24	Contact Recording Cam 3
25	Contact Recording Cam 1

Output Contacts (Contact Out)

All the contacts are potential free. When active the two related contacts are connected (closed ends). The sole exceptions are the “Error” contacts 5 and 6. These contacts are connected during normal operation. In the event of a fault both contacts are disconnected (open ends).

PIN	Funktion
1 + 2	Alarm
3 + 4	Contact recording (Cam 1 - 18)
5 + 6	Error (Loss of power, Camera or hard disk)
7 + 8	Event (not with DLS)
9 + 10	Overflow (not with DLS)



Serial Interfaces (Serial 1 and 2)

PIN	Function
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	Test

Technical Data DLS-6 / DLS-18

Multiplexer

Camera inputs (DLS-6) ..... 6 CVBS / 1 Vpp - 75 Ohm - BNC
loop through output
Camera inputs (DLS-18) ..... 18 CVBS / 1 Vpp - 75 Ohm - BNC
loop through connection possible

Monitor outputs ..... 2 CVBS / 1 Vpp - 75 Ohm - BNC

For evaluation and storage of videomaterial from 6/18 cameras.

Picture storage

Resolution ..... 720 (H) x 288/576 (V)
Video Norm ..... CCIR/PAL
Compression technique ..... Wavelet
Compression levels ..... 5 levels - freely configurable
Compression ..... individual setting for each
track type

Storage file

Ring memory ..... DLS-6 Longplay (540.000 fields)
Ring memory ..... DLS-18 Longplay (1.000.000 fields)
Alarm memory ..... Alarm (60.000 fields)

Recording

Contact ..... setting per camera
Motion detection ..... setting per camera
Permanent ..... setting per camera
Week timer ..... setting per camera

Recording speed

Multi-channel operation
Synchronised-Genlock ..... 25 fields/Second
Synchronised-Linelock ..... 12 fields/Second
Unsynchronised ..... 12 fields/Second
With motion detection ..... 6 fields/Second

1 channel operation
with motion detection ..... 9 fields/Second
w/o motion detection ..... 50 fields/Second

Recording duration

w/o picture comparison in longplay recording mode
DLS-6 approx. 3 hours upto 960 hours.
DLS-18 approx. 6 hours upto 1920 hours
with picture comparison
dependant on the activity
but longer than recording in longplay recording mode

Playback

Speed ..... 50 fields/Second,
single field, fast search

Search criteria

Date, time, camera no.

Password

Operater level ..... upto 20 digits
Installation level ..... upto 20 digits

Other

Hardware Watchdog, Real time clock,
15 GByte IDE HDD integrated in DLS-6
20 GByte IDE HDD integrated in DLS-18

Interface

Contact ..... 6 x camera specific (DLS-6)
18 x camera specific (DLS-18)
1 x attack
1 x track specific general contact
1 x save after attack
1 x Contact / reset
25 pin SUB-D

Optional

LAN ..... Ethernet, Fast Ethernet (10/100 Mbit) RJ 45
ISDN ..... 64/128 Kbit

Software modules

Standard ..... Longplay and Alarm memory

Memory expansion

IDE ..... currently - 3 x 36 GByte - internal

Menu Languages	German, English, Italien, French, *Dutch, *Spanish *on request
Remote/Access	PVS PView-Station (LAN/ISDN, RS 232) or LANI-201 / LANI-401
Mains voltage	230 V / AC - 50-60 Hz (+/- 10%) approx. 110 W
Measurements	B 425 x *H 112,5 mm x T 375 mm * with housing feet 137,5 mm
Operating temperature	+5°C upto +40°C
Weight	approx. 10 kg
Warranty	36 month

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CE

EG-Konformitätserklärung

Declaration of Conformity

Produkt: DMS-180/II, DMS-6KB, DLS-6, DLS-18
product:

Hersteller: Dallmeier electronic
manufacturer: VIDEOCONTROLLSYSTEME GmbH
Würzburger Str. 5
D - 93059 Regensburg

Wir erklären als Hersteller eigenverantwortlich, daß oben genannte Produkte folgende EG-Richtlinien erfüllen:
As manufacturer we declare that the products named above are in accordance with the following EC-Directives:

- Elektromagnetische Verträglichkeit 89/336/EWG
  electromagnetic compatibility
- Niederspannung 73/23/EWG
  low voltage

Folgende Normen wurden angewandt:
The following specifications were applied:

- Störemissionen / *Emmissions*: Grenzwertklasse B nach EN 55022: 1998
- Störfestigkeit / *Immunity*: Grenzwertklasse B nach EN 55024: 1998
- DIN EN 60950 (VDE 0805):1997-11 + A11:1998-08
- IEC 950:1991 + A1:1992 + A2:1993 + A3:1995 + A4:1996

Regensburg, 20.05.1999 gez. Dieter Dallmeier
Geschäftsführer
General Manager