

Recorder DR-N16

User Manual



1. Product Overview

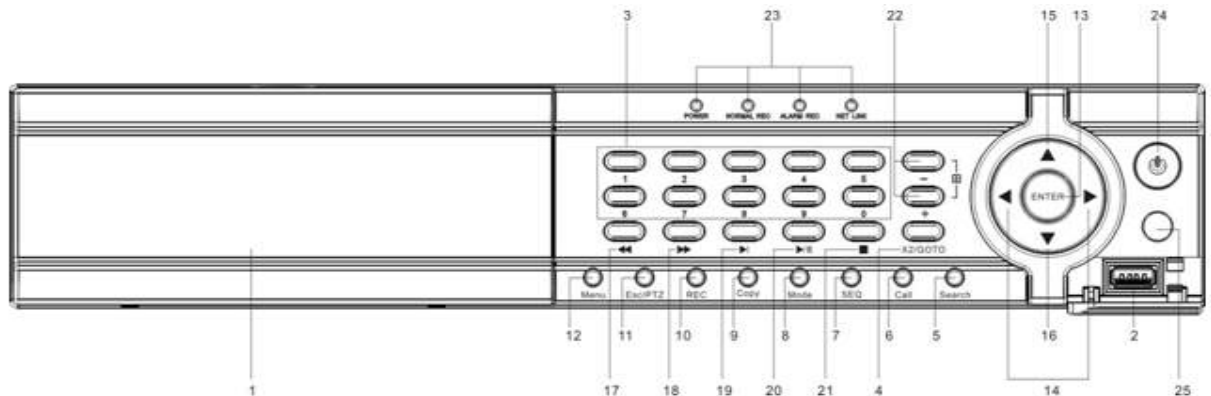
The DR-N16 VCR was developed for professional video surveillance and consists of a digital video recorder on the hard disk, a multiplexer, and a web server.

1.1 Product Features

- Possibility to connect up to 16 cameras in both color and B / W
- H264 Video compression with configurable quality
- ADPCM audio compression
- Hexaplex - The unit can not stop recording in case of live viewing, playback, backup, control and remote access
- Recording capacity - total for Full-D1 DVR: 60 (NTSC) / 50 (PAL) IPS
(Images Per Second) Half-D1: 120 (NTSC) / 100 (PAL) IPS CIF: 240 (NTSC) / 200 (PAL) IPS
- Real-time display, 30 (NTSC) / 25 (PAL) IPS, for each channel
- alarm recording or on an hourly basis
- Playback search by time or event (alarm, motion, video loss)
- the display format Versatility: full screen or split screen in windows 4/7/9/10/13/16
- Digital zoom, X2 & X4
- Intelligent Motion detection with programmable area and sensitivity
- Powerful alarm analysis with the configuration of the activation condition and reaction sensitivity
- Maximum 2 SATA hard drives
- Video / audio backup to USB2.0 storage devices, including USB sticks, external HDD and DVD + RW recorders, DVD + R, and DVD-R
- Ethernet interface for remote access via web browser, remote alarm notification, remote control, tele programming and remote firmware upgrade.
- PTZ control capability of speed dome cameras with Pelco D Protocol
- Multi-language support
- Enter password to ensure a high degree of safety.

2. Front controls, connections and remote control

2.1 Front controls



1 Front Door

Drawer for Hard Disk

2 USB port

USB 2.0 Connection device, DVD + RW, etc. ...

3 Keys Alphanumeric

They are used for the selection of a camera.

4 button X2 / GOTO

Pressing this button in PTZ control can move the camera in preset positions (PRESET).

In full screen mode you get a Digital Zoom X2 / X4

5 Button SEARCH

Pressing this button opens the search menu.

6 Button CALL

Pressing this button switches between full screen view to the initial multivision and vice versa. In some dialogs, this button is used for various functions.

7 Button SEQ

Pressing this button in full-screen mode will start a scan of all video inputs. In some dialogs, this button is used for various functions.



8 MODE button

Press this button to switch between live mode and playback. In some dialogs, this button is used for various functions.

9 Button COPY

This button allows you to copy the playback images to an external memory via USB. Press again to stop copying.

10 REC Button

Pressing this button will start manual recording and pressing it a second time will stop.

11 Button ESC / PTZ

Pressing this button in the main display screen, you can enter or exit the PTZ control if the selected camera is a dome camera connected to the rear RS485 port.

12 MENU button

Press this button to display the main menu or return to the previous display (ESC).

13 Enter button

This button is used in many cases to confirm the data.

14 left / right button (◀, ▶)

In PTZ control, press these buttons to move the camera. In viewing movies recorded press these buttons to go forward or rewind. In other situations, press this button to move the cursor or focus on a particular window.

15 Sù Button (▲)

In most cases, press this button to move the cursor up. In PTZ control, press this button to tilt the camera upwards (TILT). In text editing mode, this button is used as a space bar.

16 Down Button (▼)

In most cases, press this button to move the cursor downwards. In PTZ control, press this button to tilt down the camera. In text editing mode, this button is used as a DELETE key to delete.

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17 Rewind Button

Press this button to go back into play.

18 Fast Forward Button

Press this button to move forward in playback.

19 single-step button

Press this button to play back recorded images step by step.

20 Play / Pause button ()

Press this button to start or pause playback of recorded movies.

21 Stop Button

Press this button to stop playback.

22 +/- button multivision ()

Press this button to choose to view one camera full screen or split the screen into quadrants to display multiple cameras simultaneously. E 'can see the screen

1,4,7,9,10,13,16 cameras. In other circumstances, press this button to change the contents.

23 Leds

Power indicators, recording, alarm, access network and dialogue network.

24 Power button 25 IR receiver

It receives the signal sent to it from the remote control. Avoid obstacles that can interfere in the signal direction.

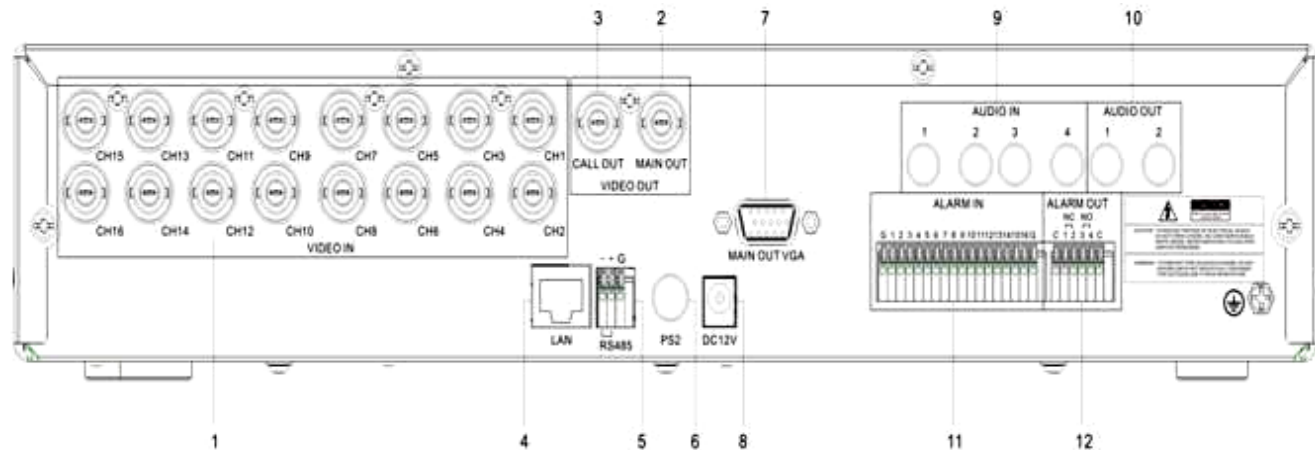
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2.2 Connections



1 Video Input Connectors (1-16)

Connect cameras to these BNC connectors. If the cable has RCA connectors using adapters

2 main video output connector (MAIN OUT)

BNC connector for connecting the analog type main external monitor. It display all the windows even if the video signal is absent and provides access to the programming menu.

3 Auxiliary Video Output Connector (CALL OUT)

BNC connector to connect a secondary external monitor said CALL. The monitor said no CALL visualises the menu, but only images from the cameras. Compared to the main output monitor it has an independent programming and visualization can bring up specific cameras according to alarm events.

4 Ethernet connector

Connect the unit to an Ethernet 10/100 Base-T through this door. E 'can also connect a PC directly with a crossover cable or ADSL modem.

5 RS-485 connector

RS485 port to connect the twisted pair leads commands to speed dome cameras.

6 Mouse Port

It allows to connect the mouse to the VCR (inclusive). The mouse is not



indispensable for the use of the appliance but is faster and more convenient to use than the front buttons.

7 VGA connector

VGA connector for PC monitor output. And 'possible to directly connect a PC monitor with a VGA cable. This replica output exactly the analog output MAIN

8 Power connector

Connect the power supply

9 Audio input connector (AUDIO IN 1-4)

These RCA connectors allow you to enter up to 4 external audio inputs to record audio files into the VCR.

10 Audio output connector (AUDIO OUT 1-2)

This RCA connector allows you to connect an external audio device to play back the recorded audio.

11 alarm inputs

You can connect sensors 16 or external contacts to generate alarms. The 2-wire inputs are connected between the common terminals (G) and the numbered terminal (1..16). From programming you can define whether the working condition is NO (normally open) or NC (normally closed)

12 Alarm output

Here it is possible to connect external devices to operate in the event of an alarm. Terminals C-1/2 Normally closed (NC) terminals C-3/4 Normally open (NO)

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2.3 Remote Control

The remote is a standard accessory with the DVR to facilitate the user. You can perform all the functions with the remote control at a distance instead of going to select the front panel. The effective distance is about 10 meters without any obstacle.

The keyboard of the DR-N16 also has only the essential buttons for operation, while several additional functions are only available using the mouse or remote control.



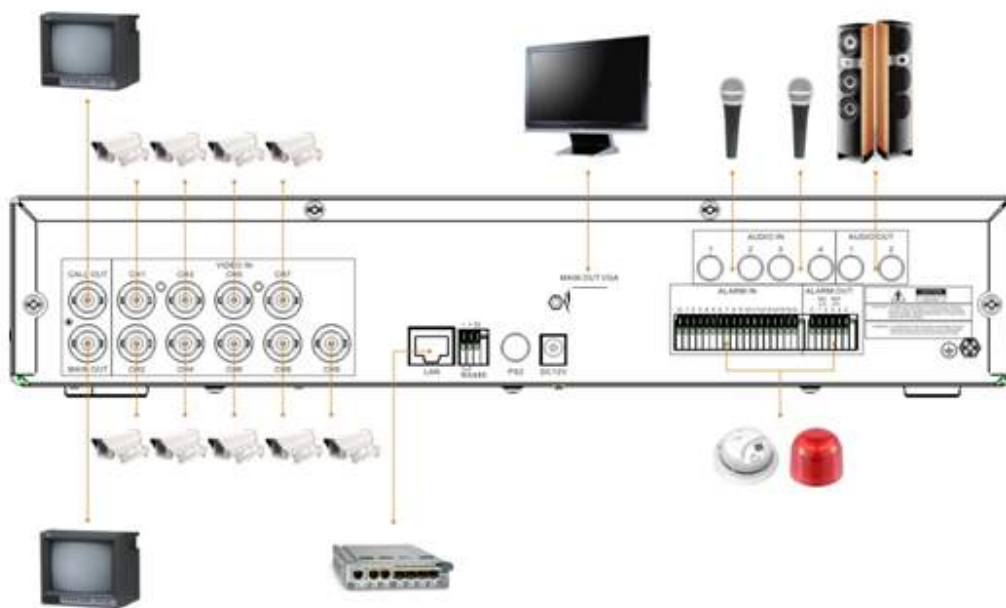
commands

Each of these keys corresponds to those present in the front panel.

3. Installation

3.1 Basic Connections

Before turning on the VCR to ensure this, the following connections:



- **Connect cameras**
The cameras are connected to the BNC Video IN (channel 1 ... 16). If the cable you have available has RCA connectors you must use a RE-BNCRCA1 adapter.
- **Connect the main monitor**
A classic CRT or LCD monitor or a TV can be connected to the MAIN OUT with BNC attack. Alternatively you can collagre a PC to the VGA monitor.
- **hard disk installation**
The first thing to do is to install the hard drive inside the equipment. Without hard-disk video recorder it is obviously not able to function. Before installation make sure the hard drive is the **type SATA**

3,5, Then install the hard disk:



1. Turn off the appliance open the VCR removing the protection unscrewing the upper side fixing screws.
2. Attach the hard disk unit in its seat by means of the screws fixing.
3. Connect the red SATA cable for data and power cable.
4. Close the device with its casing.

The video recorder also features a front drawer in which you can, if necessary, install a second hard drive removed from the front.

Note: Before you start recording you must perform physical formatting of the hard drive according to the instructions given later in this section 6.

- **feeder Connection**

Connect the power supply 220VAC / 12VDC supplied to the rear connector 12VDC

3.2 Other connessioni

- **audio Inputs**

Camera equipped with microphone, or separate microphone can be connected to DR-N16 through the 4 inputs AUDIO IN. Be sure to set the audio functions in the setup of DVR cameras so as to match the audio input to the correct camera ..

- **audio Outputs**

You can connect speakers, headphones or other external audio device through the AUDIO OUT output.

- **Alarm inputs**

CH1 ... 16 - it allows you to connect external alarm sensors which can activate recording. They are compatible with both NO contacts NC to be programmed in configuration. Connect the contact between the alarm terminals (1 ... 16) and municipalities G.

- **Alarm output**

4 relay outputs for external alarm devices.

C-1 and C-2 = Alarm outputs 1-2 of NC type (normally closed) C-3 and C-4 = Alarm outputs 3-4 NO type (normally closed)

- **LAN**

The connection to the network is simply the VCR via LAN cable. Before using the LAN connection set parameters in the internal menu of the VCR.



- **USB 2.0**

If the user wants to use USB 2.0 devices to retrieve audio / video recordings or important images you can connect this device to the VCR through the appropriate rear USB port. You can connect USB flash drives, USB Hard Disk and DVD burners.

- **CALL OUT**

E 'can connect a second TV monitor for surveillance through the CALL OUT output. Depending on the programming this monitor only displays the full screen images of the cameras when they occur alarm events (alarm or motion) or the images of all cameras sequentially. It does not allow programming menu control.

- **PTZ Cameras**

DR-N16 is capable of controlling motorized cameras speed dome with PELCO D protocol and SAMSUNG SCC-641P. The BUS is connected to terminals A / B of the RS485 port according to the directions supplied by the camera manufacturer. The communication settings are operating in RS485 configuration menu

3.3 Language Selection

The DR-N16 VCR comes with a factory setting of English. This manual is for convenience to the instructions in Italian, so as a preliminary step necessary to set the language in the options. The procedure is as follows:

- **Turn on your DVR**

Press the ON / OFF button

- **Press MENU**

The programming menu appears on the screen

- **Select LOGIN / LOGOUT**

Press ENTER

- **Press LOGIN**

Without changing the default password, press ENTER. You access the menu.

- **Press SETUP**

Select with the arrow keys and press ENTER

- **Press SYSTEM**

Select with the arrow keys and press ENTER

- **Choose LANGUAGE**

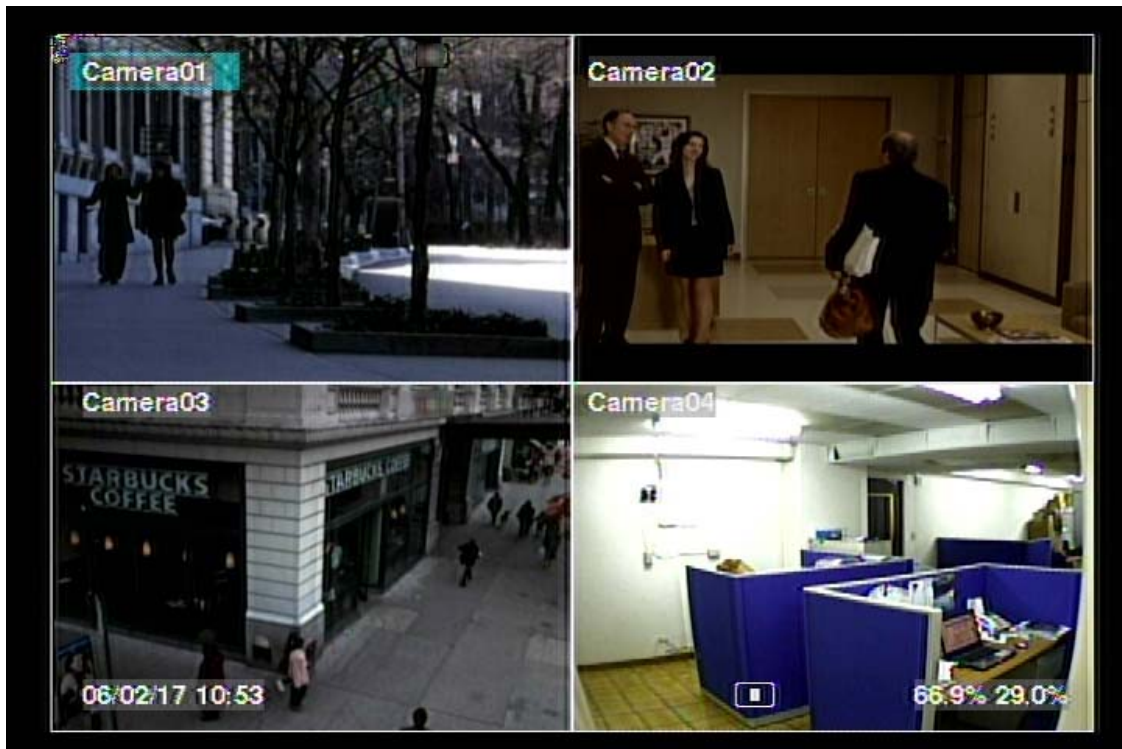
Select LANGUAGE with the arrows and press +/- to select the Italian language.

- **Press MENU and 2 times ENTER**

To exit the menu and save

The DR-N16 will perform a restart and will show MENU in the Italian language.

4. Main Screen And Basic Operations



The monitor is divided into multiple display windows, as indicated above, is the main screen after starting the system. You can view 4-7-9-10-13-16 windows by pressing the +/- buttons or a single full screen by pressing the corresponding channel button. To return to the multi-vision camera, just press the +/- button.

CAUTION

Before you can perform any operation on the DVR you have to login with the Log In procedure (see below)

The name of the camera overlays can be customized. In the lower left of the screen there is indicated the date and current time while in the lower left may appear the following system directions (from right to left in order):

SPACE OCCUPIED - Percentage of Hard Disk space occupied. They are indicated 2

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percentages: the figure on the right shows the space occupied by normal recording, the second left as alarm recording.

MUTE - The speaker icon indicates that audio is activated and if it appears disabled because you have activated the mute function

ZOOM - When using the digital zoom will appear indicating the selected magnification X2 or X4

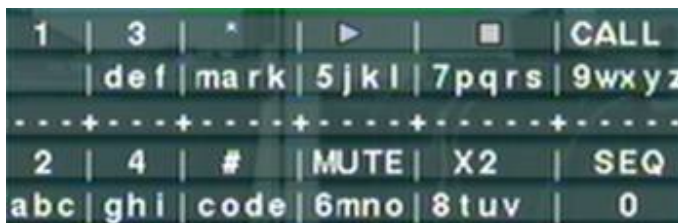
REGISTRATION - The recording icon appears if the recording is in progress. BACK UP - icon means saving being filmed. SEQUENCE - The letter S indicates that the cyclical scan is SEQ



4.1 Enter text

Certain circumstances such as writing log, write the name of the camera etc. must require entering text. To enter any text must operate on **TV REMOTE** and follow the guidelines below.

- (1) Press ENTER to display the screen with controls for writing to panel, as illustrated below. It will see a flashing cursor indicates the point where you want to write the text.



- (2) Press ◀▶ to move the cursor from left to right. (3) Press **CODE** (the remote control) in the text to

change the way of writing

(Lowercase, uppercase). The on-screen indicators show the following settings:

123 = numbers only

abc = lower case

ABC = case

CODE = unused. (4) Press the number keys (**1-9, 0**) on the remote control referring to what you want

write as well as on a cell phone. (5) Pressing **mark** on the remote control will show a list of all

punctuation

existing and most special characters. to press ▲ ▶ ▼ to change the selection. (6) If you make a

mistake, press **BS** to delete the character to the left of

cursor, or press **OF THE** to delete the character on which the cursor is placed. (7) In the typing and

the list of symbols press **ENTER** to go out and

save your changes, press **ESC** to exit without saving changes.



4.2 Sign in and sign out

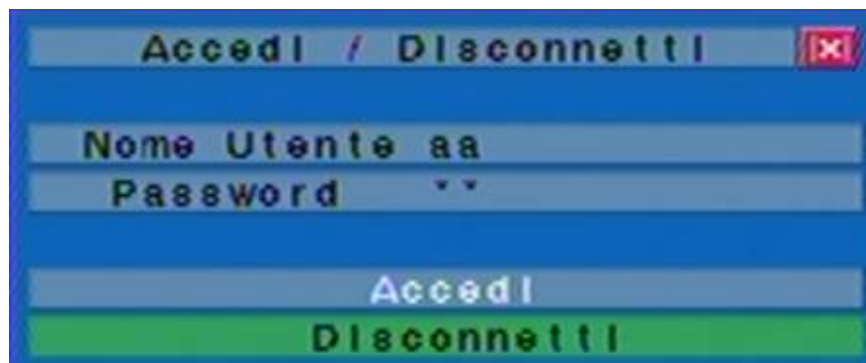
The access to the functions of the DR-N16 is password protected. You can enter users with 3 different access levels: **Administrator**, **Supervisor**, is **Operator**.

Just started the machine, if the user logs in, the system will treat it as a "guest" and can only see the display of live cameras. To be able to have access to the full use of the DVR, you must log in with a user name and a valid password.

The system allows access up to 18 different users. The administrator can set login and password for each user. The access level **operator** can only see the live images, the **supervisor**

You can also access recorded video, and the ' **Administrator** It can operate throughout the system without blocks.

To access or log off the system, press **MENU** the main screen, then press **ENTER** on **LOGIN / DISCONNECT**. A window will appear as illustrated below



In Login / Logout window, follow the instructions described in

4.1 precedente to write **username** is **password**, to press **▲ ▼** to move in the menu, then press **ENTER** to access the system. If the user wants to log out to let in **OPERATOR** mode must be selected

diconnetti, then press **ENTER**.

The unit leaves the factory already set up with a **username** it's a **password** corresponding to the level of **Administrator** (user name: **aa**, password: **11**).

You can use these settings unchanged to use the system for the first time and become familiar with the system




If the user had forgotten all the passwords of directors, please contact your dealer or installer.

4.3 Basic Operations

The user, once logged in, you can perform several basic operations listed below:

- **Numeric keys 0-9**
Press the number buttons to choose which camera you want to view. Select the area box, then type the number of the camera will appear in that box ..
- **Alarm Reset**
Press this button on the remote control to cancel alarm activation reset the alarm outputs and silence the buzzer.
- **MODE (Administrator / Supervisor)**
On the main screen, press this button to mix cameras to screen playback and live viewing.
- **SEQ**
Press this button to enter or exit mode **sequence (SCAN CYCLIC)**. For this mode requires that you magnify one of the full-screen cameras. Once activated the sequence will alternate the cameras will appear on the screen and an icon at the bottom to indicate that the mode **SEQ** It has been activated. To pause the cyclical scanning press again SEQ. .
- **CALL**
Press this button to send the camera to full screen you have selected.
- **SEARCH (Administrator / Supervisor)**
Press this button on the main screen to enter the SEARCH menu that lets you browse the contents of the Hard Disk.
- **REC**
Press this button to force manual recording, regardless of the time programmer. To stop recording, press this button again.



- **MENU**
In the main multi-image screen, press this button to display the function menu.
- **PTZ**
In the main quad screen, press this button to activate the remote control PTZ camera (if the selected camera is a speed dome camera).
- **X2**
In the full-screen mode, pressing this button will change the mode to **DIGITAL ZOOM**. More information about zoom will find them later ..
- **▲ ◀▶ ▼**
Press to select a camera. The selected camera's name will be highlighted.
- **MUTE / VOL +/-**
Press this button on the remote to control the audio output volume ..
-  **+ / -**
Press this button to switch between the views (cameras) available full screen, or to return to the main screen with quadrivisione ..

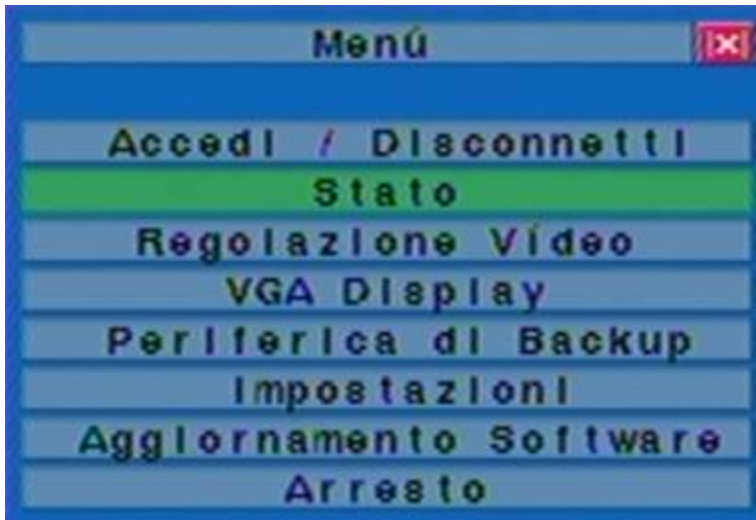
4.4 Digital Zoom



The system supports a ZOOM X2 and X4. To use this feature press **X2 on the remote control** in full screen display. It will see a smaller window to select the particular to be enlarged, as shown in the picture above. The mode operations **DIGITAL ZOOM** They are the following:

- ▲ ▼ ◀ ▶
Press these buttons to move the zoom window in particular you want to enlarge.
- **ENTER**
Press this button to enlarge the detail that you chose.
- **X2**
Press this button to activate the DIGITAL ZOOM mode between the different displays NORMAL, X2, X4.
- **ESC**
Press this button to turn off the function **DIGITAL ZOOM**. It will return to view the image full screen (ZOOM X1).

5. Main Menu



On the main screen, press **MENU** to display the MAIN MENU. In MAIN MENU There are a variety of options to choose from. The options that you can access it are black, those in which it is not possible to enter are white.

If most of the options are not accessible check that you are logged in as administrator as described above.

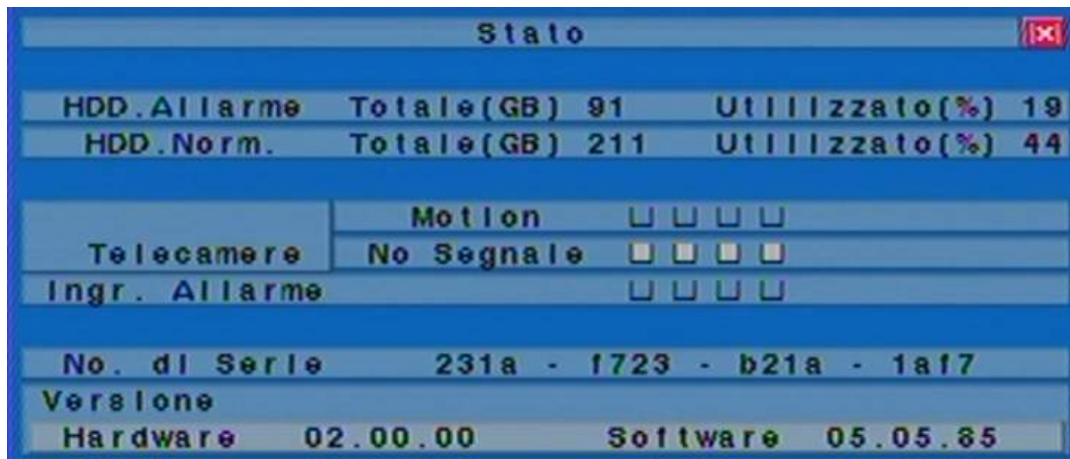
The operations that the user must perform to use the MAIN MENU are the following:

- ▲ ▼
Press these buttons to operate the menu.
- **ENTER**
Press this button to select the highlighted option
- **ESC**
Press this button to exit the menu and return to the main screen.

5.1 Status Menu



In MAIN MENU press **▲ ▼** to go to highlight **State**, then press **ENTER** to get in **STATUS MENU**.



The STATUS MENU includes the following information about your system:

HDD ALARM - shows the total and used memory (%) from the recordings in alarm condition

HDD NORMAL - indicates the total and used memory (%) from the recordings in normal timer recording condition.

CAMERAS - The white icons indicate which cameras are detecting motion, and which do not present video signal. INPUT. ALARM - The white icons indicate active inputs

At the bottom of the information about the product version. to press **ESC** to exit and return to the main menu.

5.2 Volume

In this menu you adjust the audio properties of four mic inputs. The following commands are available:

- **▲ ▼**
Press these buttons to select an item to edit ..
- **LIVE1,2,3,4**

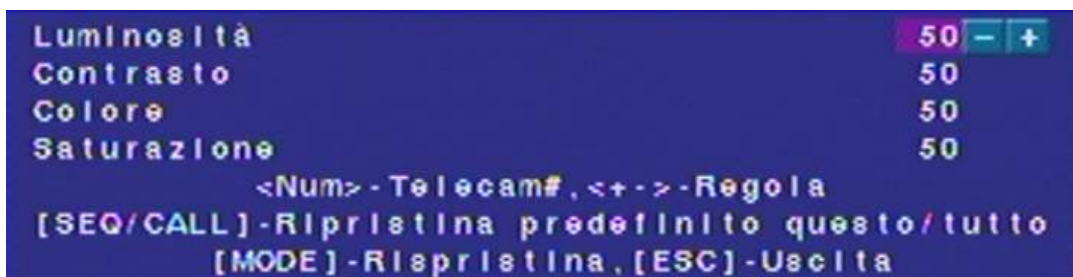
The four lines represent the four audio inputs.



- **MUTE**
Disarm video inputs
- **VOLUME**
Set the input volume. Change the value using the +/- buttons (0 to 20)

5.3 Video Adjustments

In MAIN MENU press ▲ ▼ to go to highlight **Video Adjustments**, then press **ENTER** to get in **VIDEO ADJUSTMENT**.



In this menu, you have 4 different voices that you can adjust to your liking. The entries are brightness, contrast, color, saturation. The buttons to be used in **ADJUSTMENTS VIDEO** are the following:

- ▲ ▼
Press these buttons to select the item to change.
- **number buttons**
To change the camera.
- +/-
Press these buttons to change the selected item.
- **SEQ**
Press this button to reset the camera settings to the factory settings.
- **CALL**
Press this button to reset the settings for all cameras in the factory settings.



- **MODE**
Press this button to restore the old values.
- **ESC**
Press this button to exit and return to the MAIN MENU. The adjustment settings will be saved automatically.

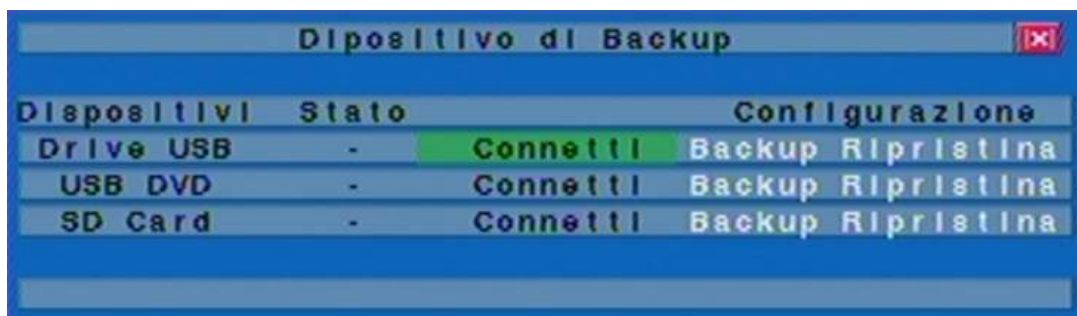
5.4 VGA Display

In this section there are the parameter settings for the VGA output for PC monitor:

- → Resolution 640 x 480; 800 x 600; 1024 x 768; 1280 x 1024 (this parameter should be set based on the optimal resolution for the monitor used).
- User adjustable Brightness →
- Contrast → User-adjustable
- Color → User-adjustable
- Saturation → User-adjustable

5.5 Backup Device

In MAIN MENU press ▲ ▼ to go to highlight **Backup Device** then press **ENTER**, a window like the one below:



The system supports a wide range of USB 2.0 storage devices such as USB drives, hard disk recorders and DVD + RW, DVD + R and DVD-R (DVD-RW is not supported). The operations are as follows:

- ▲ ▼ ◀ ▶

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Press these buttons to select the device you want to connect. The voice SD card is not usable.

- **ESC**
Press this button to exit and return to the MAIN MENU.
- **Connect / Disconnect** - If the device is disconnected you have to connect it to the USB port, then press **ENTER** to connect the device with the VCR. If the device is connected and you want to remove it, press **ENTER** to disconnect, then disconnect from the USB port of the VCR.

Note 1: Do not format the DVD

Note 2: The USB drive is formatted with the FAT32 file system for Windows before to be connected to the DVR.

Note 3: Before removing the backup device to click DISCONNECT avoid system instability.

The CONFIGURATION items to save all programming
DVR on a USB device to be able to copy integrally on another device.

- **Backup**
Pressing **ENTER** when you are on the item **Backup** It saves the configuration of the DR-N16 in USB memory
- **Restore**
to press **ENTER** when you are on the item **Restore** is loaded on the DR-N16 the configuration previously saved on the USB media

CAUTION

As always in the use of hardware from other manufacturers you may occur compatibility problems. Test other backup devices in the event of a failed connection. As an indication, we are indicated below some models of which have been tested for full compatibility.

USB 2.0 compatible devices

USB-Storage Enclosures 5.25 "- Macpower's Alumni Prefect
USB 2.0 - PF-U2MS USB-Disk Storage -

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Transcend's JetFlash 150 / V60 Series
Apacer's Handy Steno AH220 Pretec's i-Disk
Wave 512M-Black
Kingston's DataTraveler USB Flash Driver (DTI / 512FE) SanDisk's
Cruzer Micro USB Flash Driver Sony MICRO VAULT's Classic Series

DVD writers

Asus DRW-1608P Series
Pioneer DVR-A11 Series
LITEON Light Scribe DVD Writer Model SHM-165H6S Series Sony DVD / CD
Rewritable Drive DRX-810UL Model Series NEC DVD / CD Rewritable Drive
Model ND-4550A Series dvd9404e HP 18X External Super Multi DVD Writer
Series

Compatible DVD Discs

Info Mitsubishi 16X DVD + R media
DVD + RW DVD + RW 1-4X 1-4X
Philips Ritek Ritek DVD-R 8X DVD
+ RW Verbatim DVD + RW 1-4X
1-4X

NOTE: The internal DVD option is not available.

5.6 Software Upgrade (Administrator)

In MAIN MENU press ▲ ▼ to go to highlight **Software update** then press ENTER to get in **Software update**,
then it appears a window like the one below:



Of course, before proceeding with a USB device you must have been connected (see above) containing the update files. The operations are as follows:

- ▲ ▼ ◀ ▶
Press to select the USB device.
- **ESC**
Press to exit and return to **MAIN MENU**.

Below is a brief description of each item and its specific actions:

- **Backup Device** - to press **ENTER** to open the USB connection page if the device had not yet been connected. If the device appears in the list and highlight it to proceed.
- **Update the DVR** - to press **ENTER** to start the upgrade process. A confirmation window, press **ENTER** to confirm the update.

Note: After you have upgraded your software, the DVR will automatically reboot.

5.7 System Shutdown (Administrator)

As with all machines that write to a hard drive is not correct to simply turn off the DR-N16 with the ON / OFF button. To ensure that all files

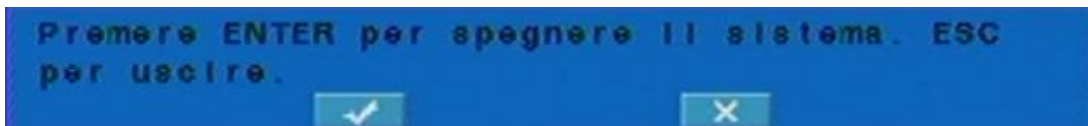
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are saved should act on this menu command. In MAIN MENU press ▲ ▼ to go to highlight **arrest** then press **ENTER** to select the shutdown. Then it will open a dialog box to confirm the shutdown, press **ENTER** to confirm.



The system will automatically save all files and All the variations. A written: STOP RUNNING will scroll on the screen. For complete shutdown you can turn off your DVR with the back button sure not to have lost precious recording files.

6. Settings (Administrator)

In MAIN MENU press ▲ ▼ to go to highlight **Settings**
then press **ENTER** to enter the settings menu where you program all DVR functions.



The operations are as follows:

- ▲ ▼
Press these buttons to move through the settings menu.
- **ENTER**
Press this button to select the highlighted item in the Settings menu.
- **ESC**
Press this button to exit the menu and return to the main menu. If you want to return to the factory

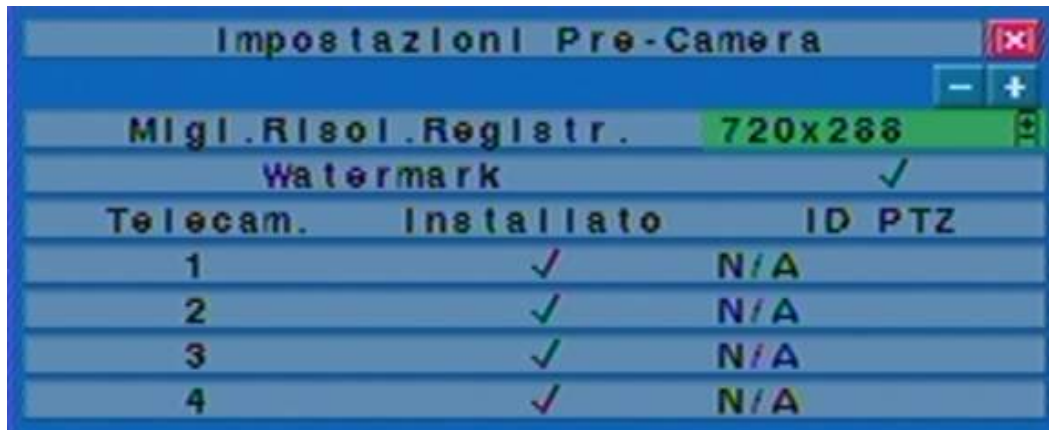
settings just go to highlight

Initial Settings with buttons ▲ ▼, then press **ENTER**. This will open a dialog box to confirm the operation, press **ENTER** or ppure **ESC** to exit without confirming.



6.1 Pre-Camera Settings

In press MENU SETTINGS ▲ ▼ to go to highlight **Pre-Camera**, then press **ENTER** to select the highlighted item.



Up to 4 cameras can be connected to the system. The pre-camera settings allow the administrator to define some fundamental attributes for all the installed cameras.

The operations are as follows:

- ▲ ▼ ◀ ▶
Press these buttons to move between the different items on the screen.
- Camera This. 1..16
Choose the camera that you want to change settings.
- **ESC**
Press this button to exit and return to the SETTINGS menu. If we changed some settings, before leaving the SETTINGS PRE-ROOM, a window to confirm saving the settings, press **ENTER** to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:

- **Thous. Res. Rec.** - Sets the resolution for recording. For the system



PAL available, 720x576 (FULL D1), 720x288 (HALF D1), or 360x288 (CIF). Press +/- buttons to select the resolution. Obviously higher resolution correspond most image quality, but also a smaller number of frames per second recordable by the DVR. (100 / CIF, 50 / Half-D1, 25 / Full-D1).

- **watermark** - The feature is not available
- **Installed** - Does the camera is installed or not. If it is installed, its parameters will be selected. to press **ENTER** or +/- to change this item.
- **PTZ ID** - Here you set the address (0..255) to match the control in the PTZ camera, obviously if it is a speed dome camera connected to the rear RS485 port. Press +/- buttons to change the value (N / A or 0-255).
The factory settings are " **N / A** "- Not available, to be held if not using a speed dome PTZ camera.
- **GROUP** - This function is only possible if you are working with 360x288 resolution and allows you to group the cameras 2 by 2 in order to economize space on the Hard Disk .. The cameras grouped between them must have the same settings.

6.2 Camera Settings

In press MENU SETTINGS ▲ ▼ to go to highlight **Camera**, then press **ENTER** to select the highlighted item.

Impostazioni Telecamera		
Telecamera	1	2
Titolo	Camera01	Camera02
Mancanza Segnale	Impostaz.	Impostaz.
Motion Detection	✓	✓
Motion	Impostaz.	Impostaz.
Covert	-	-
Richiama per Evento	Off	Off
Tempo di Pausa	10 Sec.	10 Sec.
Audio	N/A	N/A
Qualità Registr.	8	8
IPS Registr. Even.	10	10
IPS Pre-Registr.	10	10
IPS Regist. Norm.	10	10

The camera setup program allows the administrator to define the settings for each camera. Up to 4 cameras can be connected to the system.

The operations are as follows:

- ▲ ▼ ◀ ▶

Press these buttons to move between the different items on the screen
- Camera This. 1..16

Press these buttons to select the camera. Alternatively take action on the left / right arrows.
- CALL / BACKUP**

Press this button to copy all the settings of a selected camera in all other cameras. They excluded from copies the parameters of motion detection, video loss, and audio name.
- ESC**

Press this button to exit and return to the SETTINGS MENU. If you submit a confirmation Save screen, press **ENTER** to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:



- **Title** - The camera name (max. 8 characters) of the camera in question. Use the instructions on inserting texts previously seen.
- **Lack signal** - Use this setting to determine what actions to take when the system detects a lack of video signal. It leads to a subform that is explained later
- **Motion Detection** - Turn on this option to enable / disable motion detection that allows you to start recording in case of intrusion in the camera field of view. to press **ENTER** or +/- to switch to deactivate the MOTION DETECTION.
- **Motion** - Used to set the parameters of the MOTION DETECTION at your convenience in the selected camera. to press **ENTER** in **Settings** to activate the motion detection settings. These settings are described below.
- **Covert (concealment)** -If the camera in question is selected COVERT can only be seen if the user is logged in as administrator. to press **ENTER** or +/- to select the concealment or cancel the selection.
- **Recall per event** - To make the camera automatically appear in the auxiliary monitor CALL when a particular event occurs for the camera in question. There are 4 possible option you can choose to set the event off (off), motion, alarm, both (alarm / motion). Press +/- buttons to select the preferred option.
- **Pause time** - You set here the residence time of the camera on the CALL in the event monitor has been activated the previous function **Recall for event**. Press +/- buttons to change the time
(From 3 to 60 seconds).
- **Audio** - Here you can match the audio input registration for one or more cameras. Press +/- buttons to select N / A (no audio input) or 1/2 (AUDIO ACTIVE).
- **Recording quality** - To set the recording quality of the camera in question. Press +/- buttons to select the value (1-9): 1 is to indicate the + 9 low value while the + upper corresponding to higher quality but also more space occupied HDD.
- **IPS Events Registration** - The camera IPS (Images Per Second) in



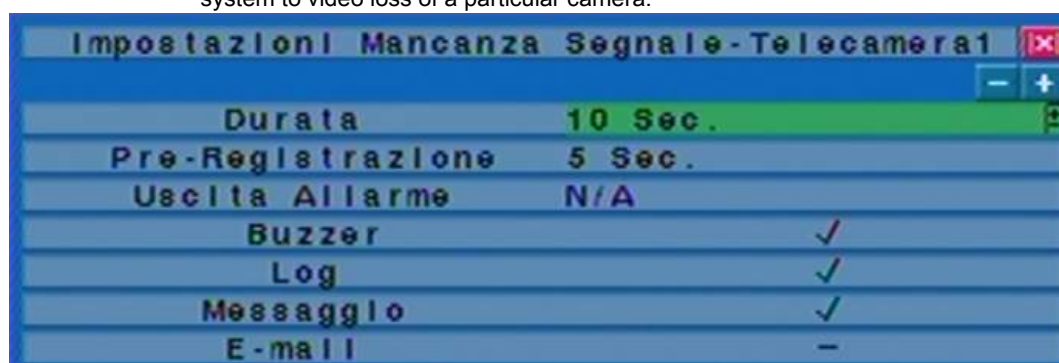
whether certain events (motion, alarm). This camera will record with the IPS set when the event occurs. Press +/- buttons to select the value (0-25 PAL / NTSC 30).

- **IPS Pre-registration** - The IPS (Images Per Second) of the camera during the pre-registration period before the alarm, and that will be described later .. Be careful because the sum of the IPS during the event and pre-registration must not exceed the maximum capacity DVR (100 / CIF, 50 / Half-D1, 25 / Full-D1) Press +/- buttons to select the value to be given.
- **Normal Record IPS** - The IPS (Images Per Second Camera) during normal recording. If there are no events remains unchanged the record pace. Considering the maximum capacity of the DVR (100 / CIF, 50 / Half-D1, 25 / Full-D1): This parameter allows you to increase the number of IPS of a more significant of the other camera. Press the buttons +/- to select the value to be given.

6.2.1 Lack video

In the setting of the camera program, go to **Signal failure**, then press **ENTER** to enter the **Settings Signal Failure** and go and change at will the different options that you have available for the camera in question. All this serves the administrator to define how the answers

system to video loss of a particular camera.



The operations are as follows:

- ▲ ▼
Press these buttons to navigate the menu.

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- **Camera This. 1..16**
Press these buttons to select the camera.
- **CALL / BACK UP**
Press this button to copy all the settings of a camera in all the following cameras.
- **ESC**
Press this button to exit and return to the SETTINGS MENU. If you submit a confirmation Save screen, press **ENTER** to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:

- **Duration** - defines how long (in seconds) remain active the alarm output and the buzzer (acoustic signal) from the time in which there is a lack of signal for the camera in question. However, the alarm output and the buzzer will be reset when the camera returns to transmit the video signal. Press +/- buttons to change the duration time (3 to 60 seconds).
- **Pre-registration** - to define how long before video loss, the relevant camera pre-registration must be activated. The period of pre-registration, often significantly, you can set as above a frame rate (IPS) accurate, generally greater than normal recording. Press +/- buttons to change the value (from 0 to 10 seconds).
- **alarm output** - defines whether the alarm output will remain active at the moment in which they present a lack of video signal into the camera in question. Press +/- buttons to select which alarm output to activate (1-2) or to disable the alarm (N / A).
- **Buzzer** - to activate the tone when he has a lack of video signal in the camera in question. to press **ENTER** or +/- buttons to select this option or not.
- **Log** - to record whether or not the video events lost in the DVR event log. to press **ENTER** or +/- to toggle this setting.
- **Message** - to see or not to see the message of the video loss. to press **ENTER** or the +/- keys to toggle this option.



- **E-mail** - to send an e-mail address set in view of the lack of signal. to press **ENTER** or the +/- keys to toggle this option.

6.2.2 Motion Detection

In the setting of the camera program to go to MOTION press

ENTER SETTINGS to enter the menu **Setting Motion** the camera that you chose to set. The **SETTINGS MOTION** allow the administrator to define how the system should respond when it detects a transmission **MOVEMENT** in the camera in question.



The operations are as follows:

- ▲ ▼
Press these buttons to navigate the menu.
- **Camera This. 1..16**
Press these buttons to select the camera.
- **CALL / BACKUP**



Press this button to copy all the motion detection settings of the camera in all the following cameras.

- **ESC**

Press this button to exit and return to the SETTINGS MENU. If you submit a confirmation Save screen, press **ENTER** to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:

- **Duration** - defines how long (in seconds) remain active the output of alarm and the buzzer (acoustic signal) from the time in which the MOTION is activated in the camera in question. However, the alarm output and the buzzer will be reset at the moment when the motion is deactivated. Press +/- buttons to change the duration time (3 to 60 seconds).
- **Goto Preset** - If using speed dome cameras can all'attivarsi of motion detection recall a precise camera presets (1..99).
- **Pre-registration** - it defines how long, prior to movement rilavazione into the camera in question, must be activated pre-registration to the frame rate (IPS) previously set. Press +/- buttons to change the value (from 0 to 10 seconds).
- **After Recording** - to define how long after motion detection in the camera in question, must continue recording the frame rate (IPS) previously set. Press +/- buttons to change the value (from 0 seconds to 60 minutes).
- **alarm output** - defines which alarm output will remain active at the moment when it detects a MOVEMENT into the camera in question. Press the buttons **+/-** to select which alarm output to activate (1-2) or to deactivate the activation of the alarm relay (N/A).
- **Detection** - Access to the detection settings that are described in the following paragraph.
- **Buzzer** - to activate the acoustic signal at the moment when you activate the MOTION in the camera in question. to press **ENTER** or +/- buttons to select this option or not.
- **Log** - to record whether or not the MOTION detection events in memory



events of the DVR. to press **ENTER** or +/- to toggle this setting.

- **Message** - to see on screen the warning following the activation of motion detection. to press **ENTER** or the +/- keys to toggle this option.
- **E-mail** - to send an e-mail address set in view of the activation of the MOTION. to press **ENTER** or the +/- keys to toggle this option.

6.2.3 Detection of Motion Detection

In the camera settings, select MOTION DETECTION SETUP and then SETTINGS. Here you adjust the manner in which a motion is detected within the visual field of the camera. In the MOTION DETECTION video settings it is divided into many small squares that form a real grid, if the background is transparent MOTION is on, when in fact the background is dark MOTION DETECTION is turned off. To choose which image areas to exclude from detection appear a green square of the grid that can be extended to all or part of the screen. Pressing enter will then excludes the area highlighted by the motion detection of creating masks.



The operations are as follows:

- **number buttons**
Press these buttons to select the camera.
- **▲ ▼ ◀ ▶**
Press these buttons to move the selection along the grid
- **+/-**
Press these buttons to increase or decrease the area where you want to deactivate the MOTION.
- **ENTER**
Press this button to enable or disable the detection area highlighted.



- **MODE**
Press this button to activate / deactivate the MOTION setting to your whole screen.
- **SEQ**
Press to decrease the SENSITIVITY 'MOTION (10 to 1).
- **CALL / BACKUP**
Press this button to increase the SENSITIVITY 'MOTION (1 to 10).
- **SEARCH**
Press this button on the REMOTE MOTION to test the camera in question. The detected motion will be displayed on the screen. Press this button again to stop the test.
- **ESC**
Press this button to exit the RECORD SETTING menu and go back to SETTINGS MOTION.

6.3 Alarm Settings

In the SETTINGS menu, press the ▲ ▼ buttons to move between items, then select the item **Alarm** and press **ENTER** to enter the ALARM SETTINGS menu.

The Settings of alarm permit administrator to define each of the 4 rear alarm inputs, and the actions to be performed if it is activated.



Impostazioni Allarme				
Ingresso Allarme	- +	2	3	4
Stato Normale	Apri	Apri	Apri	Apri
Focus Telecam.	1	2	3	4
Durata	10 Sec.	10 Sec.	10 Sec.	10 Sec.
Goto Preset	N/A	N/A	N/A	N/A
Pre-Registr.	5 Sec.	5 Sec.	5 Sec.	5 Sec.
Post-Registr.	10 Sec.	10 Sec.	10 Sec.	10 Sec.
Uscita Allarme	N/A	N/A	N/A	N/A
Buzzer	✓	✓	✓	✓
Log	✓	✓	✓	✓
Messaggio	✓	✓	✓	✓
E-mail	-	-	-	-

The operations are as follows:

- ▲ ▼ ◀ ▶

Press these buttons to navigate the menu.
- Camera This. 1..16

Press these buttons to choose the alarm input.
- CALL / BACKUP**

Press this button to copy all settings of one input to all the following inputs.
- ESC**

Press this button to exit and return to the SETTINGS MENU. If you submit a confirmation Save screen, press **ENTER** to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:

- Normal State** - press the +/- buttons to select **N / A, Close or You open**.
DR-N16 allows you to connect inputs both normally open (OPEN) and normally closed (CLOSE). If there is nothing connected please select **N / A** (not available).
- Focus Camera** - the camera corresponding to this alarm input



that will start recording when activated

- **Duration** - defines how long (in seconds) remain active the alarm output and the buzzer (acoustic signal) from the time in which it activates the alarm input device. However, the alarm output and the buzzer will be reset when the alarm input device turns off. Press the buttons

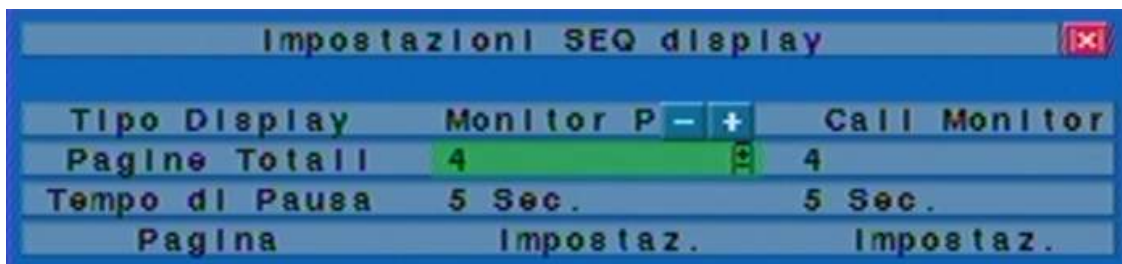
+ / - to change the duration of time (from 3 to 60 seconds).
- **Goto Preset** - If using speed dome cameras you can set the preset to display when you activate the alarm input device. The camera will rotate combined entrance to the default preset upon activation input.
- **Pre-registration** - it defines how long, prior to activation of the alarm input device, the pre-registration to the frame rate previously set in the camera settings must be activated (IPS). Press +/- buttons to change the value (from 0 to 10 seconds).
- **After Recording** - it defines how long, after the alarm input device activation, must continue recording the frame rate set in the camera settings IPS (IPS). Press +/- buttons to change the value (from 0 seconds to 60 minutes).
- **alarm output** - defines whether the alarm output will remain active at the moment when an alarm input device is activated. Press +/- buttons to select which alarm output enable (1-2), or to turn off the alarm output (N / A).
- **Buzzer** - to activate the acoustic signal in the moment in which it activates the alarm input device. to press **ENTER** or the +/- keys to select this option or not.
- **Log** - To decide whether to store the LOG in the DVR events activations of the alarm inputs .. Press **ENTER** or the +/- keys to toggle this option.
- **Message** - to see on screen the warning message for activating the alarm input device. to press **ENTER** or the +/- keys to toggle this option.
- **E-mail** - to send an e-mail address set in view of the activation of the alarm input device. to press **ENTER** or the +/- keys to toggle this option.



6.4 SEQ Display Settings

In the SETTINGS menu, press the ▲ ▼ buttons to move between the different items, and select **SEQ Display** and press **ENTER** to enter the menu of SEQ Display settings. Here you can adjust the operations of cyclical scans in an independent way for the main monitor and the auxiliary monitor CALL. The polling shows screen each individual cameras.

To monitor the call can only select a scan type, while for the main monitor is possible to select different scans depending on which are activated in the 1,4,7,9,10,13,16-screen mode cameras



The operations are as follows:

- ▲ ▼ ◀ ▶
Press these buttons to navigate the menu.
- **ESC**
Press this button to exit and return to the SETTINGS MENU. If you submit a confirmation Save screen, press **ENTER** to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:

- **Total Pages** - the total pages of polling, to be displayed in sequence. And 'possible to cycle all pages scanned to show all cameras (proposed by default) or exclude some. Press the +/- buttons to choose how many cameras to cycling.
- **Pause Time** - the dwell time (3 to 60 seconds) specifies how each page must remain in the sequence. Press +/- buttons to change the value

Pause time.

- **Page Settings** - to select which cameras to show in scanning pages. Press +/- buttons to select the page and the number buttons to set the camera combined with the page. to press **ESC** to exit and save ..



6.5 Recording Settings Schedule

In the SETTINGS menu, press the ▲ ▼ buttons to move between the different items, and select **Scheduled Recording** and press **ENTER** to enter the menu REGISTRATION PROGRAM.



Impostazioni Registrazione Programmata [X]					
T1					
Sett	Giorn	Inizio	Allarm	Motion	Norm
DOM		00: - +	A/V	A/V	A/V
LUN		00:00	A/V	A/V	A/V
MAR		00:00	A/V	A/V	A/V
MER		00:00	A/V	A/V	A/V
GIO		00:00	A/V	A/V	A/V
VEN		00:00	A/V	A/V	A/V
SAB		00:00	A/V	A/V	A/V

The SCHEDULE OF RECORDING SETTINGS allow the administrator to define when and how to record based on the time and day of the week. They are programmable in 16 segments of time system (T1-T16) for each weekday.

The operations are as follows:

- ▲ ▼ ◀ ▶

Press these buttons to navigate the menu.
- CALL / BACKUP**

Press this button to copy all settings from one day of the week on all the following days, for example. if the scheduled day is Tuesday the command will copy the program from Wednesday to Sunday ..
- ESC**

Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press

ENTER to exit and save, ESC to exit without saving.

Below is a brief description of each item and its specific actions:

- Home** - The time of recording start can be varied by increasing it to 30 minutes (00: 30/1: 00/1: 30/2: 00 ... etc). The end of recording time coincides with the start time of the next segment recording (For the last time segment T 16 it will end with the beginning of the segment 1.) Press



- +/- buttons to select the recording start time.
- **Alarm** - record mode (No recording, Video, or Audio / Video) to be performed when an alarm is detected. Press +/- buttons
 - **Motion** - recording mode (No registration, Video, or Audio / Video) to be performed when an activation verification of motion detection. Press +/- buttons
 - **Normal** - record mode (No recording, Video, or Audio / Video) to be carried out under normal conditions. Press +/- buttons

6.6 HDD Setup

In the SETTINGS menu, press the ▲ ▼ buttons to move between the different items, and select **Hard Disk** and press **ENTER** to enter the menu of SETUP HARD DISK.

Impostazioni Hard Disk		
Tipo di Registr.	Registr. Allarme	Registr. Norm
Dimensione (GB)	91	211
Sovrascritt. Autom.	✓	✓
Hard Disk Pieno	✓	✓
Durata	10 Sec.	10 Sec.
Uscita Allarme	N/A	N/A
Buzzer	✓	✓
Log	✓	✓
E-mail	-	-
[MODE] - Formatta / Cancella Hard Disk		
[SEQ] - Advanced HDD Setup		

In a video surveillance applications, recording audio / video alarm is the most important rule of the normal one. So, this video recorder is designed to split out there registration in two different partitions: RECORDING ALARM and NORMAL RECORD.

HARD DISK The Settings allow the administrator to be able to format



each partition, to view the occupied space of each partition, and you can define the behavior of both partitions to near exhaustion of hard disk space.

The operations are as follows:

- ▲ ▼ ◀ ▶
Press these buttons to navigate the menu.
- **MODE** Format / Erase hard drive
Press this button to format or erase the hard drive.
- **ESC**
Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press
ENTER to exit and save, ESC to exit without saving.

Below is a brief description of each item and its specific actions:

- **Size (GB)** - all content in GB (Giga-Byte) of the respective recording partitions. This item is only informative since the division of Hard Disk space to devote to the recordings is defined during format (see next paragraph).
- **Overwrite Automatica** - Enabling the overwriting of both partitions when recording space on the hard disk will be in the vicinity of the exhaustion system will proceed to the cancellation of the oldest images to make room for new ones. If Overwrite is disabled, the system will not overwrite the normal recording then stop recording until the user presses the button **Alarm Reset.** to press **ENTER** or +/- buttons to activate or deactivate this entry.
- **Hard Disk Full** - Enable this feature if you want to generate actions when saved registrations have reached the maximum limit of free space on hard disk. They will enable a result all of the following options. to press
ENTER or +/- buttons to activate or deactivate this entry.
- **Duration** - defines how long (in seconds) remain active the alarm output and the buzzer (acoustic signal) at the time when the hard disk space is near exhaustion. Press +/- buttons to change the duration time (3 to 60 seconds).



- **alarm output** - defines whether the alarm output will remain active at the moment when the hard disk space is near exhaustion. Press +/- buttons to select which alarm output enable (1-2), or to turn off the alarm output (N / A).
- **Buzzer** - to activate the acoustic signal at the moment when the hard disk space is near exhaustion. to press **ENTER** or the +/- keys to select this option or not.
- **Log** - To define whether the alarm should run out of hard drive to be stored in the DVR event log. to press **ENTER** or the +/- keys to toggle this option.
- **E-mail** - for send an e-mail address set, in warning exhaustion of free hard disk space. to press **ENTER** or +/- buttons to activate or deactivate this entry.

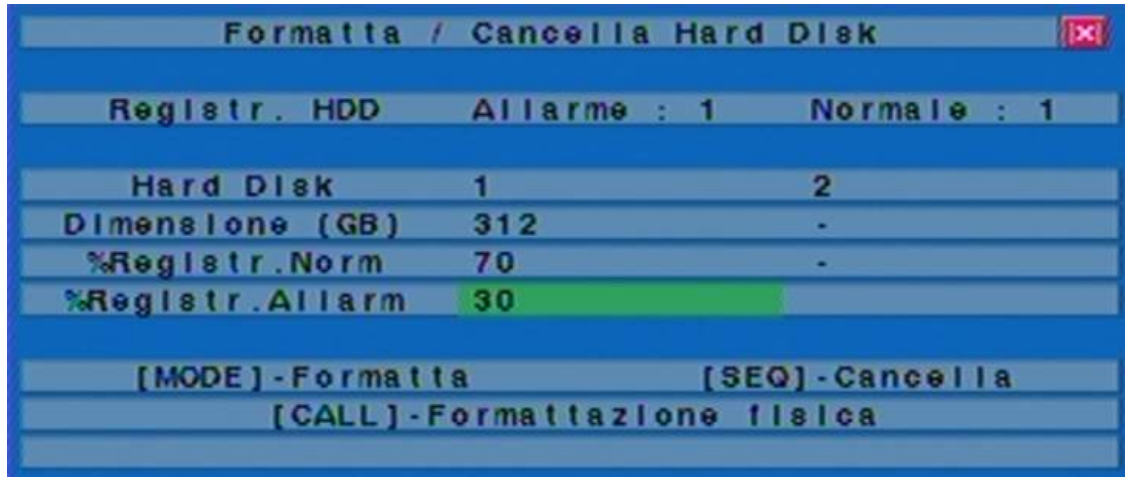
Two other commands can be used in this window:

CONTROL MODE - Access to formatting hard drive (see next paragraph)

SEQ COMMAND (remote control) - Allows you to access a form to set alarm actions at the Hard Disk write error.

6.6.1 Format / Erase Hard Disk

In the SETUP HARD DISK, press **MODE** to enter the menu and formatting hard drive erasure.



The hard disk must be formatted before the start of the audio / video recording. This function allows the administrator to format the hard disk, delete data and gives the possibility to set the maximum size (as a percentage) of the two different recording partitions: normal and alarm

NOTE: Verify that no remote connection before proceeding to the formatting is not active.

The window contains two columns to potential Hard Disk 2, but only the first is available on this model. The first two lines: GB Size and % normal recording is for information and are not accessible. E 'can instead change the percentage of Hard Disk-up to the alarm recording, press ENTER and using the inclusion texts explained in section 4.1. The percentage of HDD for normal recording will be changed accordingly. E 'can set the percentage of HDD alarm also to 0 and 100 depending on whether you are using only the alarm recording or recording only on an hourly basis.

The operations are as follows:

- **MODE => Format**
Press this button to start formatting the hard disk. A dialog box to confirm whether or not the formatting; to press **ENTER** to confirm, or **ESC** to exit without formatting. **Please note that it will take about 40 seconds to complete the formatting of a hard disk.**

If the HDD is formatted for the first time it will be divided into the default partitions (30% alarm - 70% of normal). If you have already formatted before then will be divided in the proportions set screen. Note that unlike the physical format (see below), this formatting does not delete



any content residing on the hard disk.

- **SEQ => Clear**
Press this button to delete the contents of the hard disk. A dialog box to confirm whether or not the cancellation; to press **ENTER** to confirm, or **ESC** to exit without erasing.
- **CALL => physical format**
Press this button to start FORMAT Physical hard drive. A dialog window by pressing **ENTER** it is confirmed, while pressing **ESC** It exits without confirming the physical formatting. **We recommend using the PHYSICAL FORMAT to format the hard disk for the first time.** The physical formatting always take about a minute and split the hard disk in the default percentage (30% alarm - 70% normal). All contents of the Hard Disk will be deleted.
- **ESC**
Press this button to exit the current screen and return to the SETTINGS menu HARD DISK. If you submit a confirmation Save screen, press **ENTER** to exit and save, **ESC** to exit without saving.

Following is a brief description of each menu item:

- **Size (GB)** - the maximum capacity in GB (Giga-Byte) hard disk after formatting. This item is informational only.
- **Alarm Recording (%)** - the maximum size of the alarm recording in percentage.
- **Normal Record (%)** - the maximum size of the normal recording as a percentage.



6.7 Password Settings

In the SETTINGS menu, press the ▲ ▼ keys to navigate in the menu and go to select the item **Password**, then press **ENTER** to enter the menu
SETTINGS PASSWORD.



The PASSWORD SETTINGS allow the administrator to add new users, delete unwanted users and modify their user name and password.

There are three different password levels in the system: Director (higher level) Supervisor, is Operator (lower level).

- The operator can access only to the live view of the cameras
- The Supervisor can access the live view of the cameras and viewing records
- The administrator has access to all functions and displays, including device configuration. The system can handle up to a maximum of 18 users.

The system leaves the factory with a user name and password already set, so you can come in for the first time as **Administrator**, then go and change at a later time.

Default USER NAME: PASSWORD aa
default: 11

The operations are as follows:

- ▲ ▼ ◀ ▶



Press these buttons to navigate the menu.

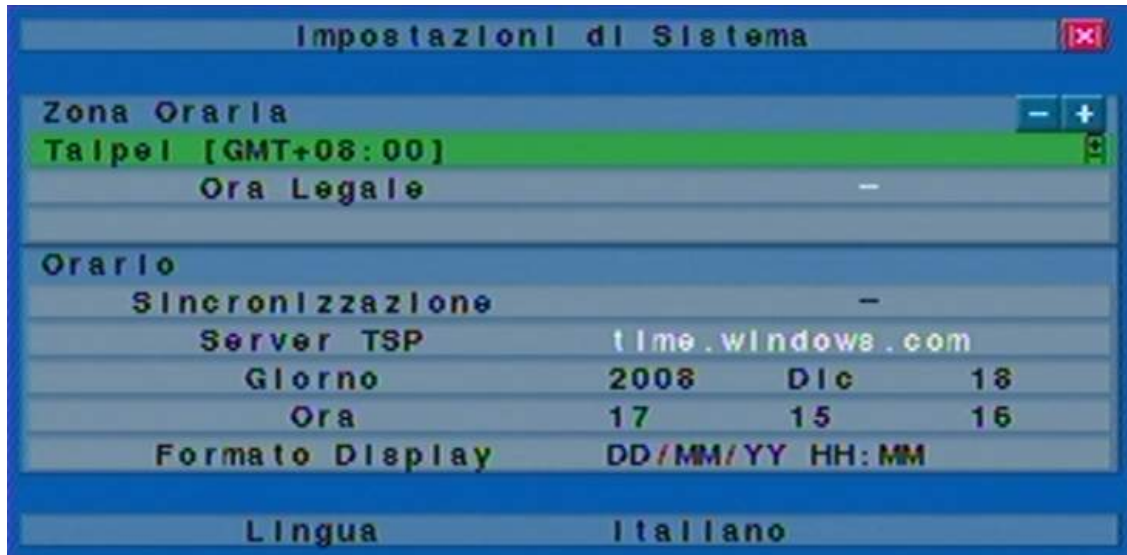
- **MODE => Set default access**
Press this button if you want to set the default access. The asterisk appears next to the user number that is highlighted, it means that that user is set as the default access. His name and password will be automatically proposed by the DVR when you log in and you will not need to enter your user name and password each time.
- **ESC**
Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press
ENTER to exit and save, ESC to exit without saving.

Below is a brief description of each item and its specific actions:

- **Username**
- **Password**
- **Level** - the password level (**Administrator, Supervisor, or Operator**) . Press +/- buttons to change the level.

6.8 System Settings

In the SETTINGS menu, press the ▲ ▼ keys to navigate in the menu and go to select the item **System**, then press **ENTER** to enter the menu
SYSTEM SETTINGS.



The SYSTEM SETTINGS allow the administrator to set different information data in the system, such as the time, time zone, language etc.

The operations are as follows:

- ▲ ▼ ◀ ▶
Press these buttons to navigate the menu.
- **ESC**
Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press
ENTER to exit and save, **ESC** to exit without saving. **Please note that if the language is changed, you need a system reboot.**

Below is a brief description of each item and its specific actions:

- **Time Zone** - press the +/- buttons to select the time zone of belonging (for Italy: GMT + 1).
- **Daylight savings time** - to press **ENTER** or +/- buttons to activate or deactivate the automatic switch from summer time to winter time.
- **Schedule**
 - **Synchronization** - indicates whether you want the time to be synchronized



automatically with a server TSP (Time Synchronization Protocol). to press **ENTER** or +/- buttons to activate or deactivate this entry.

- **TSP Server** - E 'can enter the text insertion procedure explained in paragraph 4.1 the name of the TSP server you want to use.
- **Date** - the date of the system. Press +/- buttons to change the date.
- **Now** - system time. Press +/- buttons to change the hour.
- **Display Format** - format used for displaying the date and time. Press +/- buttons to change the display format.
- **Tongue** - press the +/- keys to select the appropriate language. Changing the language will require a system reboot

6.9 Settings RS-232/422/485

In the **SETTINGS** menu, press **▲ ▼** to move up **RS-232/422/485**, then press **ENTER** to access the window below.



The RS-232/422/485 settings allow the administrator to change the settings of the rear RS485 port used for operating any motorized speed dome cameras. The window also shows the RS232 and RS422 indication, but these ports are not available on this model.

Consult your camera manual for the settings required by the connected camera.

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The available commands are:

- **▲ ▼ ◀ ▶**
Press these buttons to navigate the menu.
- **MODE**
Accesses advanced settings RS232, not used on this model.
- **ESC**
Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press
ENTER to exit and save, ESC to exit without saving.

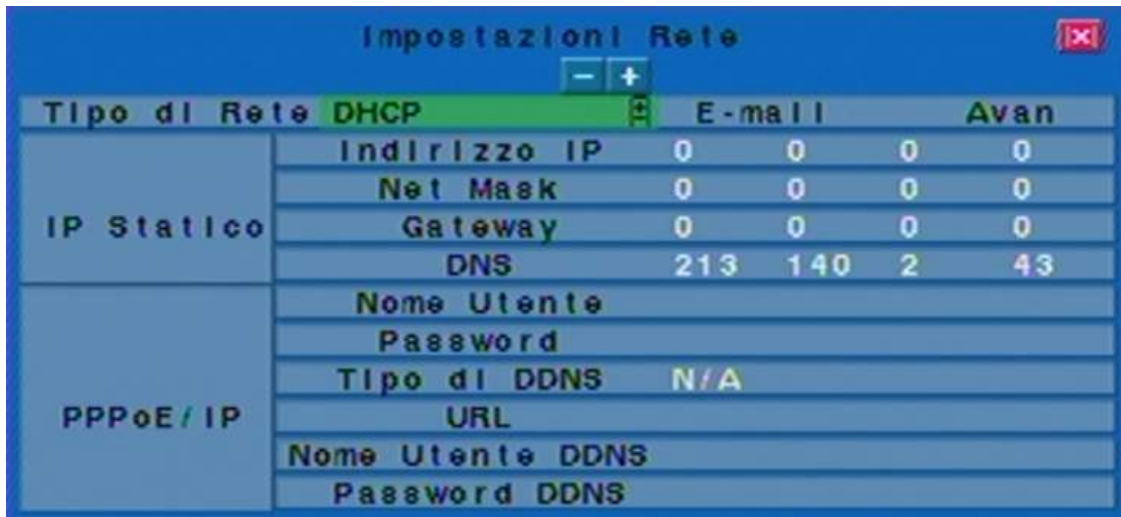
Below is a brief description of each item and its specific actions:

- **device type - PTZ or N / A (Not used).** Press +/- to change. Set the parameter of PTZ if you intend to use the RS485 port to control speed dome cameras connected to it.
- **Template** - Set the communication protocol to be used according to the connected cameras The DVR includes the protocol **D and Pelco, Samsung SCC-641P**. Press the +/- button to change the protocol.
- **Baud Rate** - press +/- to vary the speed of the Protocol
- **Data Bit** - press +/- to change
- **Stop Bit** - press +/- to vary.
- **Parity** - (**Odd, Even, or None**). Press +/- to change.
- **ID DVR / Camera** - The address to be assigned to the VCR in the RS485 BUS, must be different from those assigned to the cameras. Press +/- to change.

For instructions on how to set the communication parameters suitable for / and cameras by using consult your camera manual. Obviously all the connected cameras, though of different models, will be able to share the same communication protocol.

6.10 Network Settings

In the settings menu, press ▲ ▼ to move up **Network**, then press to access the following dialog



Impostazioni Rete		E-mail			
Tipo di Rete	DHCP	Avan			
IP Statico	Indirizzo IP	0	0	0	0
	Net Mask	0	0	0	0
	Gateway	0	0	0	0
	DNS	213	140	2	43
PPPoE/IP	Nome Utente				
	Password				
	Tipo di DDNS	N/A			
	URL				
	Nome Utente DDNS				
	Password DDNS				

Here the administrator can set all the parameters related to the connection in DVR network via the rear Ethernet port.

The available commands are:

- ▲ ▼ ◀ ▶

Press these buttons to navigate the menu.
- ESC**

Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press **ENTER** to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:

- Network Type** - Static IP, PPPoE, or DHCP. DHCP can only be used for local area networks, while Static IP and PPPoE can be used for both local networks and Internet. Press +/- to change.

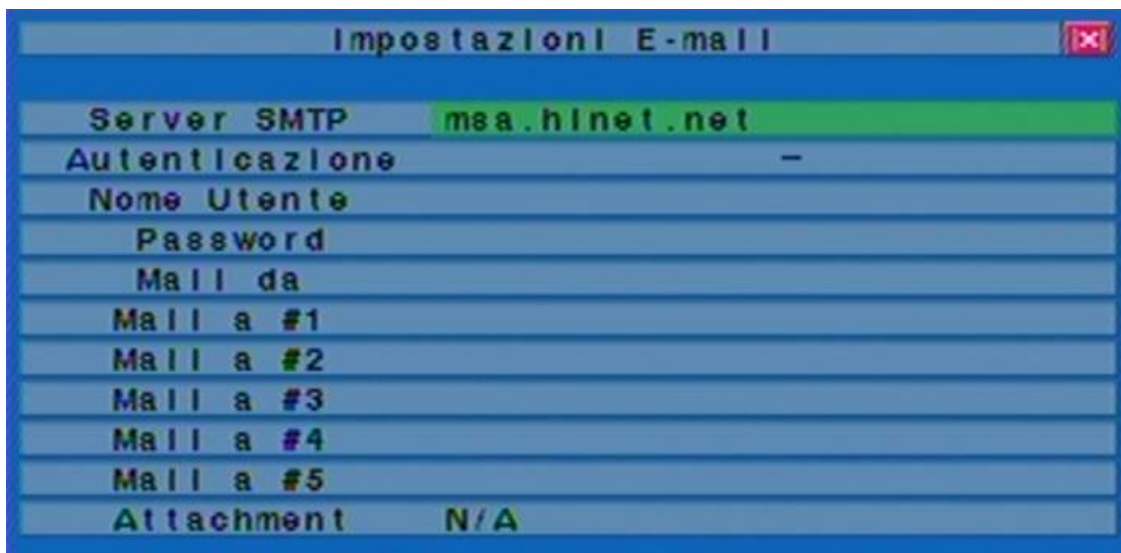


- **IP address** - The IP address of the machine to fit with the input method text described in section 4.1
- **Net Mask** - To be fitted with the input method text described in section 4.1
- **Gateway** - To be fitted with the input method text described in section 4.1
- **DNS** - DNS (Domain Name Server). To be inserted with the insertion method text described in section 4.1
- **Username** - To be inserted in case of PPPoE connection to the Internet, with the input method text described in section 4.1
- **Password** - To be inserted in case of PPPoE connection to the Internet, with the input method text described in section 4.1
- **Type DDNS** - The use DDNS service allows you to facilitate the internet access even without a static IP address. DR-N16 supports the most common DDNS services. Press +/- to change.
- **URL** - The address to be included in case of PPPoE connection to the Internet, with the input method text described in section 4.1
- **Username DDNS** - user name provided by the DDNS service provider, to be included with the input method text described in section 4.1
- **DDNS Password** - Password provided by DDNS service provider, to be included with the input method text described in section 4.1
- **E-mail** - to press **ENTER** this item to access the settings of the email address to which to send the warning notices. See the following section 6.10.1.
- **Avan.** - to press **ENTER** this item to access the advanced network settings. See the following section 6.10.2

6.10.1 E-mail Settings



In the NETWORK SETTINGS Press **ENTER** on item E-mail to enter the following window



DR-N16 is able to send e-mail alarm in different conditions such as detection of activated movement, etc. alarm input In this section, the administrator can set up email delivery parameters. Consider that most Internet providers insert anti-spam systems that can make impossible sending emails without using the common mail browser. This could result in a failure of the function. Consult your ISP about it.

The available commands are:

- **▲ ▼**
Press these buttons to navigate the menu.
- **ESC**
Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press
ENTER to exit and save, ESC to exit without saving.

Below is a brief description of each item and its specific actions:



- **SMTP Server** - SMTP server to use for sending e-mail. To be inserted with the insertion method text described in section 4.1
- **Authentication** - Set SMTP if the server requires a user name and password for sending email. to press **ENTER** or the +/- keys to toggle
- **Username** - User name to be used towards SMTP servers that require authentication in 'the e-mail sending. To be inserted with the insertion method text described in section 4.1
- **Password** - Password to use towards SMTP servers that require authentication in 'the e-mail sending. To be inserted with the insertion method text described in section 4.1
- **Mail from** - This will appear as the sender address in e-mails sent from the DR-N16. To be inserted with the insertion method text described in section 4.1
- **Mail to # 1-5** - These are the email addresses to which to send event notifications. The system supports up to 5 different addresses. To be inserted with the insertion method text described in section 4.1
- **Attachment** - Here you can specify whether the notification e-mail must be attached to the image at the time of the event. The options are: N / A (no picture), Original picture (picture in original size), QCIF picture (reduced image). Press +/- to change.

6.10.2 Advanced Network Settings

In the NETWORK SETTINGS Press **ENTER** AVAN on the item to access the following window where you can modify some advanced parameters related to network communication.

If you are not familiar with this type of setting it is not recommended to change these parameters.





The available commands are:

- ▲ ▼

Press these buttons to navigate the menu.

- **ESC**

Press this button to exit the current screen and return to the SETTINGS menu. If you submit a confirmation Save screen, press

ENTER to exit and save, **ESC** to exit without saving.

Below is a brief description of each item and its specific actions:

- **Control Port / Data Port / HTTP port** - These are the ports that are used in remote communication with the To be inserted with the insertion method text described in section 4.1 If these ports should be modified with other that they are not accessible, the DVR will restore the default ports automatically.
- **WAP image quality** - Quality image used in communication with cell phones. Press +/- to change.

6:11 Initial Settings

This item in the setup menu allows you to restore the factory settings if you are not satisfied of the customizations you have made. It has a reset confirmation screen, press **ENTER** to restore,

ESC to exit.



7. PTZ Control

The DR-N16 VCR enables controlling speed dome cameras connected to the rear RS485 port.

Before you must have connected the camera correctly (see chapter 3.2), it has programmed correctly the communication protocol to be used (see section 6.9) and have set the address of the individual cameras in the PRE-CAMERA settings (see section 6.1)


If the camera provides remote control functions will appear an asterisk before its name in the main display window.

Select the arrows at the camera and press the PTZ button to access the remote control. The asterisk will begin to flash to indicate that the camera control that is active.

The control is easy when operated by remote control.

Once PTZ control enabled has the following general commands:

Main controls:

- **PTZ**
He exits the PTZ control. The asterisk next to the name of the camera stops blinking
- ▲ ▼
Controls up / down.
- ◀ ▶
Controls LEFT / RIGHT.
- **ZOOM** () +/-
Zoom Command forward back.
- **GOTO**
recall button of a preset (PRESET) After pressing the button type the PRESET callback number (00-99).
- **NEXT**
Press this button to access additional functions, generally less used. The function selected will appear at the bottom right. Additional features are as follows

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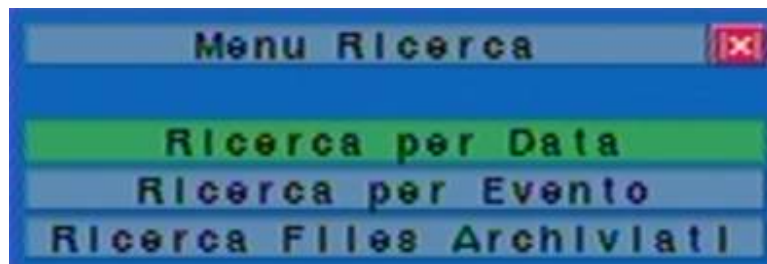
Advanced commands:

Function	Operation	Description
Focus	+ / - ENTER	Focus Near / Far auto focus
Iris	+ / -	Iris open / closed
Auto Pan (3)	+ / - ENTER * #	The pan speed is in parenthesis increase / decrease speed Have / Stop panoramic Sets the position of panoramic early Set the pan end position
SEQ (5 sec.)	 + / -, NUMBER ENTER	The residence time is between brackets. It activates the automatic scanning between presets 0-9 (or 1-10) changes the residence time of the preset Start / Stop the sequence. An asterisk indicates the active cyclic tour function.
Preset (1)	 + / -, NUMBER ENTER	The program currently is in brackets To set the preset changes the preset number to set the preset position
Pan Speed (3)	 + / -	The speed is indicated in brackets To vary the speed in the manual command. increases / decreases the speed

8. Search and Playback (Administrator, Supervisor)

The management of long recording periods requires appropriate research systems to be able to quickly locate images of interest. There are three search methods to start playback. (to) Search by date, (b) Search for event (c) Search archived files.

In quadrivisione window, press the button with the play symbol or the SEARCH button on the remote.



The available commands are:

- ▲ ▼
Press these buttons to navigate the menu.
- **ENTER**
Press to access the selected search function.
- **ESC**
Press this button to exit the current screen

The following explains the different search modes.

8.1 Search by date / time

The time search allows you to start playing at a certain date and time



The active functions are:

- ▲ ▼
Press these buttons to navigate the menu.
- **ESC**
Press this button to exit the current screen
- **SEARCH / MODE or PLAY (▶/||)**
Press the button to start search and play the movie clip. If it was not any camera in playback mode set with the MODE button, then all displayed cameras will take you to playback mode.
- **CALL / BACKUP**
Press this button if you want to save the recording as of the date selected on external media via USB without playing the video on the monitor.



This will open the backup window that we will see below in section 8.4. This type of backup is performed in the background to almost all DVR functions are accessible.

Below is a brief description of each item and its specific actions:

- **Year / Month / Day / Hour / Minute** - Play will begin from the date entered with +/- Change
- **Video / Audio - (Alarm, Motion, No Signal, Normal)**. Select the type of recording you want to search. to press **ENTER** or +/-

8.2 Search by Event

The Search for event provides access to the event memory (LOG) DVR



LOG					
Tipo Evento	CH01:SID01	09/01/08	11:25:53	No Segn	
<input checked="" type="checkbox"/> Allarme	CH01:SID01	09/01/08	11:25:23	No Segn	
<input checked="" type="checkbox"/> Motion	CH01:SID01	09/01/08	11:23:45	Motion	
<input checked="" type="checkbox"/> No Segnale	CH01:SID01	09/01/08	11:23:00	Motion	
<input type="checkbox"/> Sistema	CH01:SID01	09/01/08	11:22:17	No Segn	
ID Sorgente	CH01:SID01	09/01/08	11:21:09	Motion	
<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 3	CH03:SID03	09/01/08	11:21:04	No Segn	
<input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 4	CH02:SID02	09/01/08	11:21:04	No Segn	
	CH04:SID04	09/01/08	11:21:04	No Segn	
	CH01:SID01	09/01/08	11:12:24	Motion	
	CH01:SID01	09/01/08	11:11:20	Motion	
	CH01:SID01	09/01/08	11:10:20	Motion	
Page: 001 / 077	CH01:SID01	09/01/08	11:09:47	Motion	
[MODE] - Aggiorna			[SEQ] - Pagina Su		
[COPY] - Backup			[X2] - Pagina Giù		

There are 4 types of selectable events:

- 1) Alarm - Alarm from external contact
- 2) Motion - Alarm by motion detection
- 3) No signal - alarm from video loss
- 4) System - Technical Events



The memory contains the last **1000 events**. If you want minor events are not recorded and can specify it in the program


The active functions are:

- **▲ ▼**
Press these buttons to navigate the menu.
- **ESC**
Press this button to exit the current screen
- **MODE => Refresh**
Press the button to update this window with the latest events that happened after the opening of the window.
- **SEQ (remote control) => Page up**
- **X2 (remote control) => Page down**
- **Numbers**
By pressing the number buttons to access the log of the corresponding page.

Below is a brief description of each item and its specific actions:

- **Event type** - Choose the type of winds to display. Remember that the system events will not trigger recording. to press **ENTER** or +/-
- **source ID** - The source which generated the event. For detections of motion detection will be the camera 1,2,3 or 4, for the alarms input 1,2,3 o4. to press **ENTER** or +/-

Log - Based on previous settings will all winds in memory. E 'can highlight every wind, and: (1)

Press **Play** () for reproduce the combined event movie, (2) press **BACKUP** to save the recording to external media via USB without playing the video on the monitor. This will open the backup window that we will see below in section 8.4. This type of backup is performed in the background to almost all DVR functions are accessible.



8.3 Search files stored

The search function allows to search files stored among the videos previously saved to external media via USB. :



The active functions are:

- ▲ ▼

Press these buttons to navigate the menu.

- **ESC**

Press this button to exit the current screen

Below is a brief description of each item and its shares

specifications:

- **Backup Device** - if you have not yet established a connection with the external device (see chapter) press **ENTER** to bring up the login window. The device connected to the USB port will appear in the list below and to the left will appear the archived files. Choose the file and press

ENTER or **PLAY** to play. E 'you can also press **MODE** to delete the file.

NOTE: The stored files are named as follows:

camNN-YYYYMMDD-hhmmss.h264

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where NN is the number of the camera

YYYY is the year, MM is the month, DD is the day, hh hour, mm minute, and ss is the seconds.



8.4 Playback

During playback of a recorded movie you can be activated the following commands:

- **Play / Pause** ()
Start / Pause playback at normal speed 1X. The sound is only audible at this speed.
- **Stop** ()
Stops playback. Pressing later  playback begins from the beginning
- **Fast Forward** ( / ► on the remote control, ► on DVR)
Fast forward. Each press increases the forward speed to 2X, 4X, 8X, up to 16X.
- **Fast Backward** ( / ◀ on the remote control, ◀ on DVR)
Playing in fast reverse. Each press increases the forward speed to 2X, 4X, 8X, up to 16X.
- **Single Step** ( / ▼ on the remote control, ▼ on DVR)
Press this to frame-by-frame playback ..
- **Call / Backup**
Press to save the file on an external storage device connected to the USB port. It appears the backup window



The available commands are:

- **▲ ▼ ◀ ▶**
Press these buttons to navigate the menu.
- **CALL / BACKUP**
Press to start the backup. A scrolling text will indicate the backup is in progress which may also take some time. When backing up you can still use your VCR normally.
- **STOP**
Press to stop the backup
- **ESC**
Press this button to exit the screen

Below is a brief description of each item and its specific actions:

- **Backup Device** - the backup device that will be connected to the USB port.
And 'necessary that the device is connected before you can use (To see section 5.4)
- **Speed** - the backup speed to vary +/- Press
- **Directory** - The folder to place the videos to be edited as text

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- **Cameras** - The cameras to be saved. Press +/- to change
- **end** - Date and time of end of the period to be saved.



9. Remote Access

By connecting the DR-N16 to a LAN or the Internet you can connect to it from a remote PC. For remote access using a standard Web browser such as Internet Explorer.

Connect the DR-N16 network

First you need to connect the DVR to the network via the pto network. It 'also need to set the network parameters in the settings as described in section 6.10 based on the characteristics of its network.

Before you connect remotely

Before access DVR carry out the following preliminary operations. Note that in almost all computers the only truly indispensable step is the third.

1. Check the IP address assigned to the DVR in SETTINGS / NETWORK.
2. **Verify that DirectX ® End-User Runtime 9.0 or higher installed on your**
your computer. This step is unnecessary in most PCs. If you use an old PC and you need to
download the DirectX you can do so for free at www.microsoft.com
3. Open the Internet Explorer browser on the PC you want to connect making hotel and enter the IP
address of the DVR from the Trusted Sites. To do this, access to INTERNET OPTIONS /
SECURITY / TRUSTED SITES uncheck of ASK CHECK HTTPS and enter the IP address (or
domain name if you use DDNS) of the DVR in the list. In IE7 you have to set the security level for
this zone to LOW.
4. Make sure the download and execution of ActiveX controls is not disabled. go
in OPTIONS INTERNET> PROTECTION> LEVEL
CUSTOM and enable all the items related to ActiveX management.
5. Verify that the port 67 (control) and port 68 (data) is not blocked by your router, firewall or ISP.
6. If the PC was used to access previous versions of the product, go to Internet Options and delete all
temporary files.



7. To maximize your enjoyment of images set the Windows display of STYLE WindowsXP (in CONTROL PANEL> DISPLAY> Appearance and select a screen resolution of at least 1024x768 in 32-bit color.

Access

After checking the points described in the preceding paragraph must restart your browser and enter the DVR IP address (or domain name if you use a DDNS service) in the address bar: Example <http://192.168.0.8>
If the previous tests were done correctly the control interface will be installed automatically and will appear on the screen a window asking you access to the DVR password.

Depending on your PC configuration, you may request the installation of Microsoft Visual C ++ that is permitted. You will see the remote control window of the DR-N16.

**NOTE: Maximum 5 users
at the same time.**

Remote can connect

the DR-N16

Remote PC Control

The control mask is as follows.

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The display window can be divided into several boxes containing 1 or 4 cameras. The cameras whose name is followed by the letter L are viewing LIVE, those followed by the letter P in the playback mode. The cameras As highlighted in white are detecting intrusion (Motion).

Note 1: The number of received frames per second is limited by the bandwidth available in the network and the number of IPS recorded by the DVR. **Note 2:** The picture quality depends on the recording resolution set and the quality of the camera.

Briefly describe the available commands from remote PC

- In the window of each camera by clicking the right button a menu appears that allows you to: 1) Set the camera full screen FULL SCREEN 2) Set the PLAYBACK / LIVE mode 3) FREEZE Freeze the picture 4) Print the image RELEASE 4) Activate cycle scan SEQ 5) Save a snapshot of the image in BMP format.



These icons let you change the screen division.



Enable and stop SEQ cyclical scan mode.



Change all cameras to Live mode to playback mode and vice versa.



Freeze screen all camera images. Press again to resume normal vision.



By clicking this icon the signal from your PC's microphone it will be sent to the DR-N16 and reproduced. Press again to mute (MUTE). By default, this signal is not active.



Enable audio playback from the DR-N16 and combined with the selected camera at the time. default, this signal is not active.



Playback controls allow control of the playback of recorded images, from left to right: Rewind, Fast Forward, Forward frame, normal Play, Pause, Stop, and Copy.

The copy command is used to save both LIVE reproductions that recorded images. By pressing the copy button opens a window where you have to select the camera to save and the location to save the file.

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PTZ controls. If the selected camera is a dome camera connected to the DVR you can control it remotely. The control panel includes Tilt Up / Down, Pan Left / Right, Zoom In / Out, Focus Near, Focus Far, Iris - (darker), Iris + (brighter).

Room 

the camera status indicators (GREEN for normal, RED pending motion alarm) E 'can click the icon to select the corresponding camera.

Alarm In / 

Status indicators for alarm inputs (GREEN for normal, RED alarm in progress)

Alarm Out 

Status indicators of the alarm outputs (GREEN for normal, RED active alarm output). The administrator can also click on this icon to enable / disable the outputs remotely manually.



Click to call up the TIME SEARCH window. Choose the date and time to search for play back images recorded in the DR-N16. Be sure to modify before the state of / and camera / and you want to search by LIVE PLAYBACK. Why search is successful it is necessary that at least one of the cameras is set in a state PLAYBACK (right mouse button) Once play starts, you can act on the playback controls.



Click to call up the EVENT SEARCH window. It will appear on the screen the event memory of the video recorder which is composed of diverse pages scroll with UP / DOWN keys. E 'can select the type of event and the camera of interest to you, then you must press REFRESH to see the LOG on the selection. Once you start playing you can act on the playback controls.



This button allows you to play video files (.H264) previously saved to the computer hard disk. It appears a search window to locate the file on your PC and play it.



Clicking this icon displays the PTZ control panel on the selected camera. This panel can be moved freely within the screen and allows all speed dome control operations available from the keyboard.



This icon accesses to program settings and DVR setup. A list where you will see the connected VCR. By clicking on the MODIFY button you can set the following parameters:

- **First name** - Name the DVR
- **Address** - IP address or domain name of
- **Control Port** - The control port. By default 67
- **Data Port** - The data port. By default 68
- **Username** - The username to access the DVR to be inserted into the user's DVR list. Depending on the level of access will also be enabled remotely the same constraints that exist at the local.
- **Password** - The correct password linked to the user
- **Auto Connection** - automatic connection when
- **Default directory** - The default folder to save the DVR configurations



connected

Contemporary Connection with multiple DVRs

E 'can be entered with the command ADD up to 4 video recorders DR-N16 to connect to. It will be possible via the front keypad recall them as desired with keys DVR1 and DVR2 DVR3 DVR4 also see them on the monitor together with the subdivision of keys 25, 36, 49, 64.

Remote programming

Highlighting a VCR and clicking PROPERTIES 'leads to its complete programming (only ADMINISTRATOR). E 'can be reprogrammed in its entirety and then send it to the DVR with the UPLOAD command. The sending of the new program will require you to repeat the connection. E 'can also save programming the DR-N16 in a folder on your PC so you can then refill with the OPEN button and send to another VCR using the UPLOAD command.



This button allows you to update your DR-N16 firmware remotely. This operation should be performed only when actually needed. And 'necessary that the path is? Formatted hard disk inside the DVR to upgrade.

After the upgrade the DVR will restart and the connection is lost. Before reconnecting you have to delete all temporary files in Internet Explorer and restart your browser.

Minimum Requisitri the remote PC

- **PC**
IBM PC / AT compatible.
- **CPU**
Intel ® Pentium ® 4, 1.4 GHz or higher
- **OS**
MicroSoft ® Windows ® XP, MicroSoft ® Windows ® Vista or Windows ® 2000

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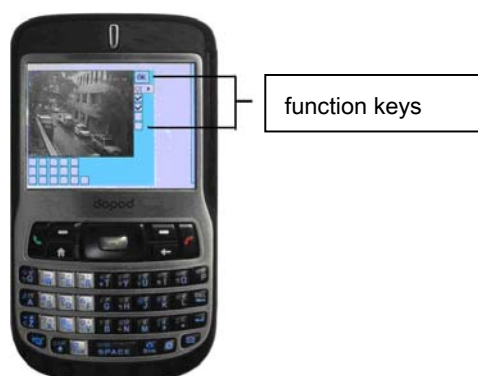
with SP4.

- **Monitor**
1024 x 768 or higher
- **Memory (DRAM)**
512MB.
- **Network interface**
Ethernet, 10/100 Base-T.
- **Web Browser**
Microsoft® Internet Explorer® 6.0 or higher.
- **DirectX**
Microsoft® DirectX® 9.0 or higher.

9.1 Remote Access with mobile phone / PDA 2G 3.5G ~

You can access the DR-N16 VCR even using a browser installed on a mobile phone or PDA that supports XHTML formats MJPEG and has a screen resolution of at least 240x320 pixels. You must enter in the browser the domain name (if you use a DDNS) or the IP address of the DVR to the Internet. You usually need to enter the IP address as <http://145.123.32.20> and the DVR will automatically send back to the correct page

<http://145.123.32.20/wap.htm> . If this does not happen to type the full address into your browser.



Press to send content to the DVR.



Channel Selection: Q1 = CH 1; CH2 = Q2, Q3 = CH 3. or 1 = QUAD.



Select the car image refresh rate: 1 second, 2 seconds, etc. Or press next to update the image.



Alarm outputs 1-4 (Check mark if active). You can turn them on by inserting the check mark.



Alarm inputs 1-5 (top row), 6-10, and 11-16
(check mark if active)

10 Utilities

The CD supplied with the DR-N16 contains a utility that you should install on your PC. It contains three useful functions:

- H.264 Video Player

It is a freely distributable free reader that allows you to play .H264 files that are saved on the DVR on the external media. This way you can see movies on any PC without being in connection with the DVR. The user interface of this program is quite similar to the remote management program that appears in Internet Explorer, but many functions can not be accessed because it is a utility aimed at only one playing a video file. The program allows you to print images.



- H.264 files to AVI Converter

This small program allows you to convert files saved by .H264 DVR to AVI files playable on any player such as Windows Media Player. This allows the production of distributable files to third parties without these encounter problems reading. However, given the time needed for the conversion, you should export only short films. If you need to provide third parties with long-lasting films should leave the file in its original format and attach the SETUP.EXE installation file of HEM player.

The H264 decoder must be installed on the PC to be able to play the converted AVI files.

- Keyboard Control Simulator.

This program allows to simulate the control panel of a speed dome camera, and then to control speed dome cameras (with Pelco-D protocol) connecting them to the serial port of the PC.

Generally you require a RS232 / RS485 adapter to connect the serial port of the speed dome to that of the PC.



10 Software for the control panel with graphical maps

The CD supplied with the DR-N16 is including a powerful centralized control program that allows you to control from a single most VCRs connected via LAN / Internet PC supervisor simultaneously.

The program allows the creation of custom graphical maps, and allows to insert all the components VCRs elements (cameras, alarm inputs, outputs, etc.) within explanatory immediately understandable graphics. The manual to use the software is under preparation. Contact the technical department for more information.





















12 control with mouse

The DR-N16 VCR can be used in all its basic functions with the front keys. More advanced features are available on the remote control. To provide the convenience of use typical of PC-based video recorders, the DR-N16 is also equipped with with mouse control possibilities.

The mouse is supplied as standard and must be connected to the back door before the VCR.

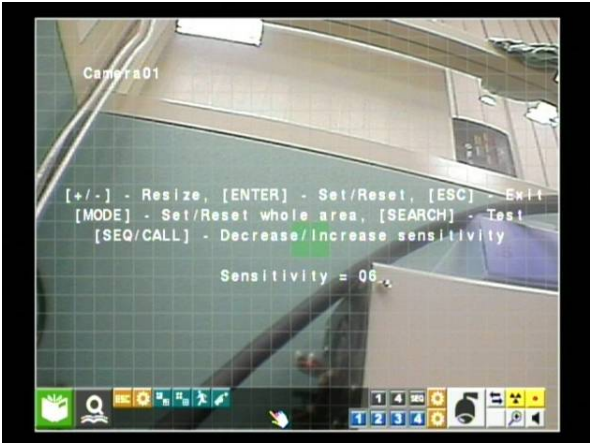
To view the mouse menu, move the cursor to the bottom of the screen. A menu will appear to allow you to click the mouse all the functions described so far with the traditional controls.



	Menu		Search for		Leave		Sequence
	Fold tools		Rewind		fast forward		Next to frames
	Unfold tools		Play / Pause		Stop		Copy
	alarm reset		Live / Playback		PTZ		Full screen
	Volume		Page up		Page down		Close



12.1 Setting the motion detection with the mouse



	Select the highlighted area		Select the entire image		Sensitivity		Test
--	-----------------------------	--	-------------------------	--	-------------	--	------

12.2 PTZ control with the mouse



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	Go to		Reduce		Zoom		increase
	Preset position		Focus		Auto Focus		Iris
	SEQ		Auto pan		Speed		Mark

12.3 video control with the mouse

	Default Values <u>this camera</u>		Default Values <u>all cameras</u>		Restore Default
--	--------------------------------------	--	--------------------------------------	--	-----------------

12.4 Common icons

	On		Down		enter		Code
	Left		Right		Clear		back space
	Confirmation		Space		Select		+ / -

12.5 Numerical icons





Appendix A - Specifications

System	OS	Embedded Linux 2.6
	Multiplex	Exaplex - Simultaneous recording, live viewing, playback, backup, configuration, and remote access.
Video	Format	PAL / NTSC or CCIR / EIA
	Inputs	CH-16, BNC, 1 Vp-p / 75ohm
	Monitor 1 2	BNC x 1 1 Vp-p / 75ohm
	PC Monitor	VGA
	Alarm No Video	Yes
	Motion detection	Yes
Audio	Inputs	1 RCA-jack connectors, line-in level (100mV-2Vrms)
	Outputs	1 RCA-jack connectors, line-out level (up to 2Vrms)
Registration.	Compression	Video: H.264 Audio: ADPCM
	Frame rate (IPS) & Resolution	NTSC - 60/720 * 480, 120/720 * 240, 240 / 360 * 240 PAL - 50/720 * 576, 100/720 * 288, 200 / 360 * 288
	Rec Mode. Manual / Schedule / Alarm / Motion Pre-registration	
		0-10 seconds
	After Recording	0-60 minutes
Monitor	Max Resolution	NTSC - 720 * 480, PAL - 720 * 576
	Multivision	1/4/7/9/10/13/16
	Frame rate	Up to 30 (NTSC) / 25 (PAL) IPS Window
	Freeze Function	Yes
	Cyclic	Programmable
	digital zoom	X2, X4
Playback	Frame rate (IPS) & Resolution	NTSC - 60/720 * 480, 120/720 * 240, 240 / 360 * 240 PAL - 50/720 * 576, 100/720 * 288, 200 / 360 * 288
	Search	Date / Time, Camera, Alarm, Motion, No Video &
	Control playback	Play, Fast Forward, Backward, Pause, Stop, etc.
Storage	HDD	Max 2 pcs. 3.5 "SATA HDD,

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		Max. 2TB each.
	Partitions	Storage Spaces separate alarms and normal recording mode and programmable overwrite
	Backup	1 USB 2.0 port for USB 2.0 Hard Disk, DVD + RW recorders, DVD + R, DVD-R, and Readers USB sticks
Alarms	Inputs	16 NO / NC contacts
	Outputs	2 NO + 2 NC
	Buzzer	Yes
	buzzer	Sensors, Video lost, motion, technical Causes
	alarm Log	1000 events
Network	Ethernet	1 RJ-45 port 10 / 100BaseT Ethernet
	Web	Remote configuration, monitor, backup & remote software upgrade
	E-mail	Send e-mail to 5 addresses on event
	Video	Full screen / quad
	Audio	Bidirectional
	Protocol	TCP / IP, HTTP, PPPoE, DHCP, DDNS, TSP
	remote Users	Up to 5 simultaneous connections
	Internet Explorer Access	Software Access from
	mobile / PDA	Yes
Controls	I / R	1 remote control
	RS-485	2-pin control for speed dome prot Pelco D / Samsung
Config.	Local	Yes
	remote	Yes
	Multi-language	Yes
Power failure igniting		Igniting and recovery after power failure
	Watch Dog Timer	Yes
	Timer	Integrated
	Safety	3 levels of access - 18 users
Power supply		DC12V-6A provided
	Consumption	60W Max.
operating temperature		0 or C ~ + 50 or C

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Appendix B - Table time zones

Area	Offset	DST	DST start	End of daylight saving time
samoa	GMT - 11:00			
Hawaii	GMT - 10:00			
Alaska	GMT - 9:00 ~ Mar 2nd Sun, Nov 2:00 pm, 1st Sun, 2:00			
Pacific Time (US & Canada)	GMT - 8:00 ~ Mar 2nd Sun, Nov 2:00 pm, 1st Sun, 2:00			
Arizona, US Mountain	GMT - 7:00			
Chihuahua, La Paz, Mazatlan	GMT - 7:00 ~ May, 1st Sun, Sep 2:00, last Sun, 2:00			
Mountain Time (US & Canada)	GMT - 7:00 ~ Mar 2nd Sun, Nov 2:00 pm, 1st Sun, 2:00			
Central America, Saskatchewan	GMT - 06:00			
Central Time (US & Canada)	GMT - 06:00 ~ Mar 2nd Sun, Nov 2:00 pm, 1st Sun, 2:00			
Guadalajara, Mexico City, Monterrey	GMT - 06:00 ~ May, 1st Sun, Sep 2:00, last Sun, 2:00			
Bogota, Lima, Quito, Indiana (East)	GMT - 05:00 Eastern Time			
(US & Canada)	GMT - 5:00 ~ Mar 2nd Sun, Nov 2:00 pm, 1st Sun, 2:00			
Atlantic Time (Canada)	GMT - 04:00 ~ Mar 2nd Sun, Nov 2:00 pm, 1st Sun, 2:00			
Caracas, La Paz	GMT - 04:00			
Santiago	GMT - 04:00 ~ Oct, 2nd Sun, 0:00 Sea, 2nd Sun, 12:00			
Newfoundland	GMT - 3:30 ~ Apr, 1st Sun, Oct 2:00, last Sun, 2:00			
Brasilia	GMT - 03:00 ~ Oct, 3rd Sun, 2:00			February, 3rd Sun, 2:00
Buenos Aires, Georgetown	GMT - 03:00 ~ Oct, 3rd Sun, 2:00			February, 2nd Sun, 2:00
greenland	GMT - 03:00 ~ Sea last Sun, 1:00 Oct, last Sun, 1:00			
Mid-Atlantic	GMT - 02:00 ~ Sea last Sun, Sep 2:00, last Sun, 2:00			
Azores	GMT - 01:00 ~ Sea last Sun, Oct 2:00, last Sun, 3:00			
Cape Verde	GMT - 01:00			
Casablanca, Monrovia	00:00 GMT +			
Dublin, London	00:00 GMT + ~ Sea last Sun, 1:00 Oct, last Sun, 2:00			
Western Europe, Central Europe	01:00 GMT + ~ Sea last Sun, Oct 2:00, last Sun, 3:00			
West Central Africa	01:00 GMT +			
Eastern Europe	02:00 GMT + ~ Sea last Sun, Oct 12:00, last Sun, 1:00			
Cairo	02:00 GMT + ~ Apr, last Fri, 2:00			Sep, last Fri, 2:00
Harare, Pretoria	02:00 GMT +			
<u>Helsinki, Kiev, Riga, Sofia, Tallinn</u>	<u>02:00 GMT + ~ Sea last Sun, Oct 2:00, last Sun, 3:00</u>			
Jerusalem	02:00 GMT + ~ April 1st, 2:00			Oct, 2nd Sun, 2:00
Baghdad	03:00 GMT + ~ April 1st, 3:00			Oct 1, 4:00
Kuwait, Riyadh, Nairobi	03:00 GMT +			
<u>Moscow, St. Petersburg, Volgograd</u>	<u>03:00 GMT + ~ Sea last Sun, Oct 2:00, last Sun, 3:00</u>			
Tehran	03:30 GMT + ~ Mar 4th Tue, Sep 2:00 pm, Thu 4th, 2:00			
Abu Dhabi, Muscat	04:00 GMT +			
Baku, Tbilisi, Yerevan	04:00 GMT + ~ Sea last Sun, Oct 2:00, last Sun, 3:00			
Kabul	04:30 GMT +			
Ekaterinburg	05:00 GMT + ~ Sea last Sun, Oct 2:00, last Sun, 3:00			
Islamabad, Karachi, Tashkent	05:00 GMT +			
Chennai, Mumbai, New Delhi	05:30 GMT +			
Kathmandu	05:45 GMT +			

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Almaty, Novosibirsk	06:00 GMT + ~ Sea	last Sun,	Oct 2:00, last Sun, 3:00	
Astana, Dhaka, Sri Lanka	06:00 GMT +			
Rangoon	06:30 GMT +			
Bangkok, Hanoi, Jakarta	07:00 GMT +			
Krasnoyarsk	07:00 GMT + ~ Sea	last Sun,	Oct 2:00, last Sun, 3:00	
Irkutsk, Ulaan Baatar	08:00 GMT + ~ Sea	last Sun,	Oct 2:00, last Sun, 3:00	
Beijing, Chingqing, HK, Urumqi	08:00 GMT +			
Kuala Lumpur, Perth, Singapore	08:00 GMT +			
Taipei	08:00 GMT +			
Osaka, Seoul, Tokyo	09:00 GMT +			
Yakutsk	09:00 GMT + ~ Sea	last Sun,	Oct 2:00, last Sun, 3:00	
Adelaide	09:30 GMT + ~ Oct,	last Sun,	2:00 Sea, last Sun, 3:00	
Darwin	09:30 GMT +			
Brisbane, Guam, Port Moresby	10:00 GMT +			
Canberra, Melbourne, Sydney	10:00 GMT + ~ Oct,	last Sun,	2:00 Sea, last Sun, 3:00	
Hobart	10:00 GMT + ~ Oct,	1st Sun,	2:00 Sea, last Sun, 3:00	
Vladivostok	10:00 GMT + ~ Sea	last Sun,	Oct 2:00, last Sun, 3:00	
Magadan, Solomon Is.	11:00 GMT +			
Auckland, Wellington	24:00 GMT + ~ Oct,	1st Sun,	2:00 Sea, 3rd Sun, 2:00	
fiji	24:00 GMT +			
Kamchatka	24:00 GMT + ~ Sea	last Sun,	Oct 2:00, last Sun, 3:00	
Anadyr	13:00 GMT + ~ Sea	last Sun,	Oct 2:00, last Sun, 3:00	
Nuku'alofa	13:00 GMT +			



Appendix C - Table recording capacity

indicative PAL recording capacity (in hours)										
HARD DISK reference (GB): 200										
Resolution Quality		Average	Frame rate recording (IPS)							
		frame size (KB) *			100	50	25	12.5		
720x576	9	42.0								
(Full D1)	8	36.0								
	7	27.3								
	6	21.3								
	5	18.3								
	4	14.7								
	3	10.0								
	2	7.3								
	1	4.7								
720x288	9	21.0								
(Half D1)	8	18.0								
	7	13.6								
	6	10.7								
	5	9.2								
	4	7.4								
	3	5.0								
	2	3.7								
	1	2.4								
360x288	9	10.5								
(CIF)	8	8.5								
	7	7.2								
	6	5.7								
	5	5.0								
	4	4.0								
	3	2.8								
	2	2.2								
	1	1.4								