

NetCam DVR

Installation Instructions



Eng

Philips
Communication,
Security & Imaging



PHILIPS

NetCam DVR**Safety****IMPORTANT SAFEGUARDS**

1. Read Instructions: All the safety and operating instructions should be read before the unit is operated.
2. Retain Instructions: The safety and operating instructions should be retained for future reference.
3. Heed Warnings: All warnings on the unit and in the operating instructions should be adhered to.
4. Follow Instructions: All operating and use instructions should be followed.
5. Cleaning: Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Power Sources: This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer.
7. Power-Cord Protection: Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
8. Power Line: An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits.
9. Overloading: Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.
10. Object and Liquid Entry: Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the unit.
11. Servicing: Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

NetCam DVR**Safety**

12. **Damage Requiring Service:** Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions.
 - If liquid has been spilled, or objects have fallen into the unit.
 - If the unit has been exposed to rain or water.
 - If the unit does not operate normally by following the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
 - If the unit has been dropped or the cabinet has been damaged.
 - When the unit exhibits a distinct change in performance - this indicates a need for service.
13. **Replacement Parts:** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
14. **Safety Check:** Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

FCC INFORMATION

Caution: Any changes or modifications to construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NetCam DVR**Safety****SAFETY PRECAUTIONS**

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

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



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



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

**ATTENTION: INSTALLATION SHOULD BE PERFORMED BY
QUALIFIED SERVICE PERSONNEL ONLY IN ACCORDANCE
WITH THE NATIONAL ELECTRICAL CODE OR APPLICABLE
LOCAL CODES.**



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

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NetCam DVR

Contents

NetCam DVR**Section I****I INTRODUCTION**

The NetCam DVR is a 4-channel camera style DVR all-in-one system with a Web server, a networking device, a CCD module and a HDD (6GB standard and changeable). The unit only needs a designated power supply and network in order to operate.

I.1 Description***DVR with a built-in HDD***

The NetCam DVR records images onto its own HDD at the maximum speed of 10 frames per second. Since the unit is equipped with a dedicated file system, it prevents recorded data from being damaged or lost in course of sudden power failure.

Powerful image compression

The NetCam DVR utilizes Wavelet compressing algorithm in addition to this, it is equipped with a 32bit RISC CPU to make it more efficient in image processing.

Simple installation and various functions

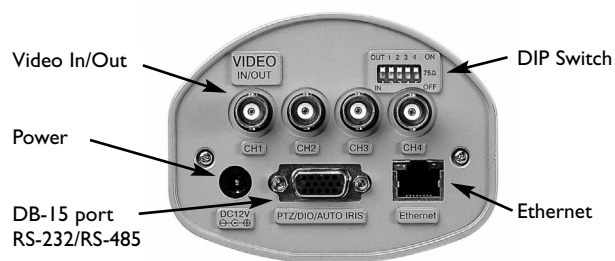
Functional firmware of the NetCam DVR is saved in the 8 MB flash memory chip. For this reason, its firmware can be upgraded remotely through Internet or Intranet. The NetCam DVR is designed to have a DB-15 port (RS-232 & RS-485) to connect external devices such as alarm sensor, pan/tilt, zoom lens, and other devices. The NetCam DVR also controls 4 external analogue CCTV cameras by connecting them to the video input ports.

NetCam DVR**Section I****I.2 Unpacking**

Unpack carefully. This is electronic equipment and should be handled with care to prevent damage to the unit. Check for the following items:

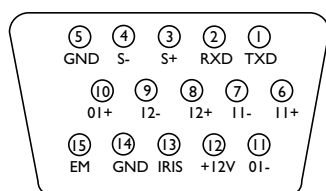
- ☒ NetCam DVR - 4-Channel Camera Style Network DVR
- ☒ AC Adapter & Power cable DC 12V, 1A
- ☒ Lens 8mm, f 1.3, C mount, already assembled
- ☒ 1 m crossover cable (Red)
- ☒ 2 m direct cable (White)
- ☒ Plug & cable clamp for DB-15
- ☒ Wrench 0.035" [0.89 mm]
- ☒ CD ROM with Software and Manual
- ☒ Manual

Note: The shipping carton is the safest container in which to transport the unit. Save it and all packing materials for future use.

I.3 NetCam DVR Rear View and Descriptions

NetCam DVR**Section I**

Pin	Connection	Function
1	TXD	RS-232 transmit.
2	RXD	RS-232 receive.
3	S+	NetCam DVR RS-485. (half-duplex).
4	S-	NetCam DVR RS-485. (half-duplex).
5	GND	Ground
6	Input 1 +	Isolated input port
7	Input 1 -	Isolated input port
8	Input 2 +	Isolated input port
9	Input 2 -	Isolated input port
10	Output 1 +	SSR output port
11	Output 1 -	SSR output port
12	12V +	Power Supply
13	IRIS	Not used
14	GND	Ground
15	EM	Not used



DB-15 port (RS-232 and RS-485)

NetCam DVR**Section I**

Switch	Function
OUT/IN	Configures NetCam DVR to accept input (IN) or output (OUT) signal to the BNC connector.
1, 2, 3, 4	75 Ω (ON) or High impedance (OFF) (Loop through).



DIP Switches

NetCam DVR**Section 2****2 INSTALLATION****2.1 Setup**

- Connect Ethernet and Power to NetCam DVR on local network for configuration.
- Install the setup program for NetCam DVR.
- Assign an IP address to NetCam DVR and configure administrator's condition.
- Configure user's condition.
- Locate NetCam DVR, and re-connect power and Ethernet.
- Adjust the Focus.

2.1.1 Connecting

- Connect Ethernet line to the Ethernet port in the rear.
- Connect the power supply to a power supply port in the rear.
- Confirm that the green LED of the Ethernet port blinks

2.1.2 Location

- Place NetCam DVR appropriately for your purpose

Warning: Do not expose the camera lens to direct sunlight. When you operate NetCam DVR in the glaring light, we recommend using an auto iris lens.

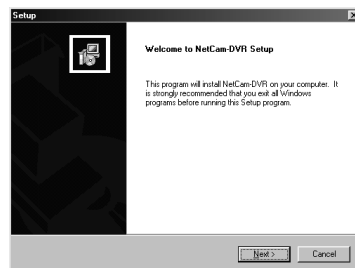
2.2 Installing NetCam DVR Setup Program

2.2.1 Installing for the first time

Copy the 'NetCam DVR Viewer' program files onto your PC. Click 'setup.exe' file. Follow the instructions.

It is recommended that you reboot your PC after the setup procedure is completed.

When prompted for "Locked file" for MSFLXGRD.ocx, MSCOMCT2.ocx and COMCTL32.ocx select "Reboot".



2.2.2 Modifying, Repairing & Removing

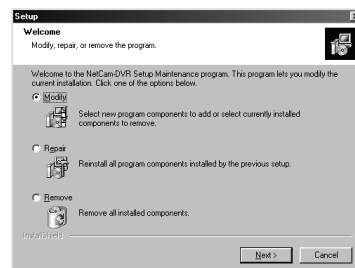
If you have already installed the NetCam DVR Viewer and select 'setup.exe', a window is displayed showing the options 'Modify', 'Repair', and 'Remove'.

The three options are to fix the already installed NetCam DVR Viewer as well as to upgrade to a newer version. If you have a problem with the NetCam DVR Viewer, you may modify manually, repair automatically, or remove and reinstall again. However, it is recommended that you remove and reinstall the NetCam DVR Viewer, if your software does not work properly.

Modifying

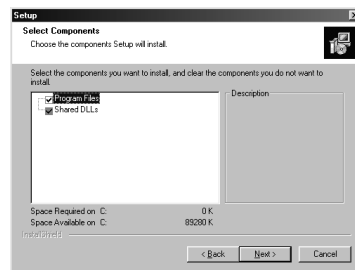
Modify the existing NetCam DVR Viewer manually by selecting the file that you want to modify.

- Select 'Modify' mode.



NetCam DVR**Section 2**

- Select the files that you want to modify. However, it is recommended that you click the 'Next' button to select all directories. The whole process will then be automatically completed.

**Repairing**

Allows you to repair an already installed NetCam DVR Viewer automatically using the setup program.

- Select the 'Repair' mode and the whole process will be completed automatically. However, there is a possibility that the repairing process may not be completed properly. In this case, it is to remove and reinstall NetCam DVR Viewer.

Removing and re-installing

- Select 'Remove' mode
- The 'Confirm File Deletion' window is displayed. Press 'Yes' button.
- During the deleting process, you are prompted to delete share files MSFLXGRD.OCX, MSCOMCT2.OCX, COMCTL32.OCX. It is recommended not to delete the files.

After completion, you should install the NetCam DVR Viewer again.

NetCam DVR**Section 2****2.3 Assigning IP address and Starting Configuration**

To enable access to the NetCam DVR, first you have to assign an appropriate IP.

Terminology

- IP Address: Acquire IP address from network administrator.
- MAC Address: The 12digit number on the label at the bottom of NetCam DVR.
- Direct Cable: A common UTP cable to connect devices such as a PC or NetCam DVR that has an Ethernet port (RJ-45 port).
- Crossover Cable: A specially designed UTP cable to connect two devices directly like connecting a PC and NetCam DVR through Ethernet port.

2.3.1 IP AddressImportant

- You must use a new assigned IP address, do not use the default or example IP address.
- It is highly recommended to assign an IP address before you connect the NetCam DVR, otherwise conflicts may occur.

There are two methods to assign IP address to the NetCam DVR:

- With setup program
- With ARP command

Connecting with a Crossover Cable to assign an IP address

- When you assign an IP address to the NetCam DVR, it is recommended to connect the NetCam DVR and a PC with a crossover cable that is provided with the NetCam DVR.
- You may use a direct cable (UTP cable). In this case you should use a HUB to connect the NetCam DVR and a PC to assign an IP address. Or you should have a LAN cable to connect the NetCam DVR, and a PC that is already connected with a LAN cable.

Section 2

Ensure that the NetCam DVR Viewer is installed.

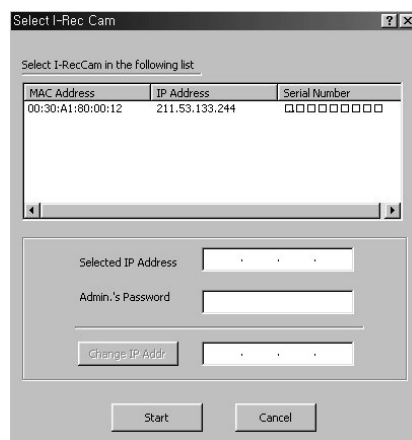
-

You can setup the NetCam DVR only if it is connected on a local network.

When the setup program is selected, the window shows every NetCam DVR connected at the local network.

From the NetCam DVRs list, click the MAC address for the one that you want to assign an IP address and set up

When the NetCam DVR is selected, an IP address is displayed in the 'Selected IP Address' box. (Default IP address is 211. 53.133.92).



You should key in a password in the 'Admin's Password' box to set up the NetCam DVR or to change the IP address. Default password is 'admin'. You can change the IP address by clicking the 'Change IP Addr' button or change the set up by clicking the 'Start' button.

NetCam DVR**Section 2****Assigning an IP address**

- Key in a new IP address in the 'Change IP addr' box.
- When you key in a new IP address, the button is activated and you can click the button.

Setting system information

- Click the 'Start' button after keying in a password. The 'Setup' window in which you can set up the NetCam DVR is displayed.
- With 'Initialize FlashInfo', you can reset all the setting to the default values. However, neither time nor network configurations are reset. Initialized information is mainly for recording and management conditions.
- You can define the name, location, and description of the NetCam DVR. The model and serial number are fixed.

If the NetCam DVR has any problem, you can reboot without switching off the power supply. Click the 'Reboot Cam' button.

Setting user account

You can change the administrator's password. The default password is 'admin'. Change it with to a unique password for yourself.

Setting network information

You can set the IP address, Network Mask, Broadcast address, Gateway address, and DNS addresses. When the addresses are not assigned correctly, you cannot access the NetCam DVR remotely. If you do not assign an IP address to the NetCam DVR, you cannot access the product regardless of the NetCam DVR's local network registration status.

NetCam DVR**Section 2****Setting IP security mode**

You can restrict accessibility to the NetCam DVR with user's IP address registering. Only the users whose PC's IP address is registered can access the NetCam DVR.

You may stop a registered user accessing the NetCam DVR temporary with the menu option on the right side of each IP address. You can change the IP addresses to allow access.

If you inactivate the 'Secure Mode' (IP filtering) option, you can access the NetCam DVR by installing the NetCam DVR Viewer into any PC.

Setting information on channels and HDD

Channel Use: You select the channels to display live images and to record them on the NetCam DVR's self-contained HDD. When you connect an external CCD camera to Ch1 port on the rear of the NetCam DVR, you can select 'External' for Channel 1. Otherwise, select 'internal'. You can also select one or more channels as a video source. For external channels, it is very important you should check only the channels that are connected with external cameras. Otherwise, all live and recorded images may flicker.



Camera Config: Define the CCD format of the NetCam DVR and CCD cameras ['NTSC' or 'PAL']. You can rotate the image by 180°. If you rotate the image that is sent from each camera, you can mount the NetCam DVR directly on the ceiling [i.e. upside down].

NetCam DVR**Section 2**

HDD Use: Click the 'HDD Enable' field to enable the NetCam DVR to record images on its HDD. If not enabled, the NetCam DVR will not record nor replay. (Default figure is set to HDD disable. In this case, every button on a main frame that relates to recording and replaying is disabled.) You can format the HDD with the 'HDD Format' button. When the HDD is formatted, all recorded images will be deleted.

PTZ

The NetCam DVR can control pan/tilt/zoom functions, if pan/tilt driver and zoom lens are installed. However, you need to install the communication protocol onto the NetCam DVR to control pan/tilt/zoom.

System	User	Network	IP Security	CH/HDD	PTZ
		Model		Interface	
CH1		None		485	
CH2		None		485	
CH3		None		485	
CH4		None		485	

The NetCam DVR has some protocols installed for specific models of pan/tilt/zoom. The communication protocols vary for each manufacturer. It is recommended to use a pan/tilt/zoom that has the protocol installed. If you want to install a pan/tilt/zoom whose protocol is not registered, please contact Philips for information.

2.3.4 Assigning IP Address with ARP command

If you do not assign an IP address with the setup program, you can set it using the ARP command.

Using ARP in Windows 98 and NT

- Start a DOS window and type the following commands.

```
arp -s <NetCam DVR IP address> <NetCam DVR Ethernet address>
ping -t <NetCam DVR IP address>
```

- Example

```
arp -s 200.243.232.178 00-40-8c-10-00-86
ping -t 200.243.232.178
```

NetCam DVR**Section 2****Using ARP in Windows 95**

- Start a DOS window and type the following commands.

```
arp -s <NetCam DVR IP add.> <NetCam DVR Ethernet add.> <my PC IP  
add.>  
ping <NetCam DVR IP address>
```

- Example

```
arp -s 200.243.232.178 00-40-8c-10-00-86 200.243.232.130  
ping 200.243.232.178
```

Verifying installation

If the procedures are installed successfully, the following message or similar will be displayed:

```
Request timed out  
:  
Request timed out  
Reply from 200.243.232.178: bytes=32 time=2ms TTL=255  
Reply from 200.243.232.178: bytes=32 time=2ms TTL=255  
  
Ping statistics for 200.243.232.178:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milliseconds:  
        Minimum = 1ms, Maximum = 2ms, Average = 1ms
```

- If you cannot receive the reply by the 'ping' command, try pressing 'F3' and 'Enter' keys again. Normally 'Request timed out' messages appear 7 times before you receive a proper reply.
- If you succeed in utilizing the above commands, you will receive a reply continuously. You can stop the process by pressing <Ctrl>+<C> keys.

NetCam DVR**Section 2**

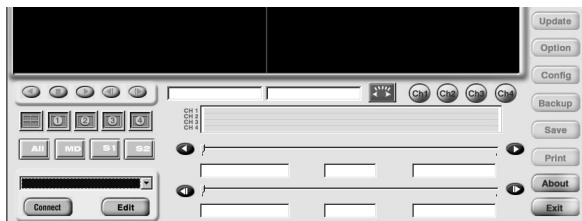
- When you stop receiving the reply using the <Ctrl>+<C> keys, data loss may be from 0% to 99% statistically, meaning it is normal to get a reply. This is the reply you would get normally. If the statistic shows '100% loss', you should check if the network line and connection status are stable; if the assigned IP address is available, or if a PC (or notebook computer) has the same local network's IP address as the NetCam DVR. The same local IP address of C grade network means that first 3 numbers are the same but the fourth numbers are different. For example 203.243.232.111 and 203.243.232.112 are the same local network IP addresses. (If there is a 'Network Mask' on the network, it can be a different case.)

NetCam DVR**Section 3****3 Configuring NetCam DVR**

After assigning an IP address to the NetCam DVR, you can configure the NetCam DVR through the NetCam DVR Viewer.

3.1 Opening the 'NetCam DVR Viewer'

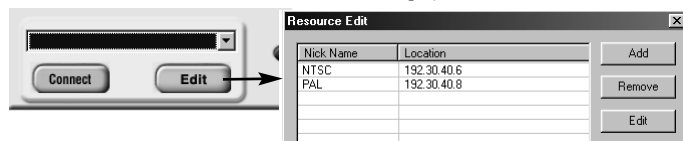
- Click the file 'CamViewer.exe', the monitoring screen is displayed.

**3.2 Configuring NetCam DVR****Connect:**

- To connect the NetCam DVR, highlight the respective name and click the 'Connect' button.

**Edit:**

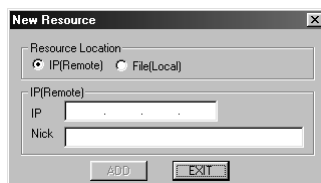
- To add, remove, and edit the IP addresses of NetCam DVR, click the 'Edit' button. The "Resource Edit" window is displayed.



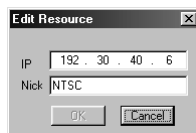
NetCam DVR**Section 3**

ADD: You can add a new NetCam DVR. You can also add a backup file as a resource. All the backup files of the NetCam DVR can be only be accessed through NetCam DVR Viewer.

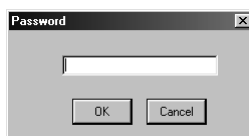
- Select 'IP(Remote)' button to add a new NetCam DVR. Enter the IP address and name.
- Select 'File(Local)' button to add a backup file. Enter the file name and path, then the designated name.



REMOVE & EDIT: You can remove or edit an existing resource. Change the IP address or the name of the NetCam DVR. You can also remove the NetCam DVR.

**Password:**

After you connect, you may have to enter a password if this option has been enabled. You can change the password at the 'Config' menu.



NetCam DVR**Section 3****3.3 Configuring recording and system conditions****Update:**

When connecting the NetCam DVR, you can update the recorded data to monitor by clicking the 'Update' button.



Update changes from

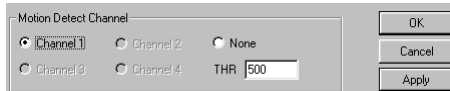
**Option:**

You can configure the recording options by clicking the 'Option' button.

**Motion Detect Channel:**

You can select a channel that detects motion.

When this option is enabled the NetCam DVR can detect motion, but the source channel is restricted to one. Therefore, you should select which channel is assigned to detect motion and send signals to its CPU. You can set sensitivity of motion detection via the 'THR' field. The range is from 1 to 999, where '1' is the highest level, and '999' is relatively the lowest.

**Normal Save:**

You can select the standard recording levels with frame rate, image resolution and image quality (compressing rate). The quality level of the live image may also be adjusted.



NetCam DVR**Section 3**

Event Save: You can select the recording levels of frame rate, image resolution and image quality (compressing rate) when events occur.

	Channel 1	Channel 2	Channel 3	Channel 4
Frame Rate	5frame/sec	15frame/sec	No Save	No Save
Resolution	HALF(720x420)	FULL(720x420)	CIF (360x240)	CIF (360x240)
Quality	5	5	5	5

Event: You can configure which channel sends video signals to record on the HDD when events occur. You can activate the motion

	Channel 1	Channel 2	Channel 3	Channel 4
Motion Detect	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sensor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sensor 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

detection function and two connected external sensors for any channel (see 'Motion Detect Channel' option for the respective channel that has the assigned motion detection function). If you check channel 1 as a source channel in relation to 'Motion Detect', the NetCam DVR records the video from channel 1 when the NetCam DVR detects motion through assigned motion detect channel.

Config:

You can configure the NetCam DVR's system settings for the HDD; Time, Password, and Screen adjustment.



NetCam DVR**Section 3**

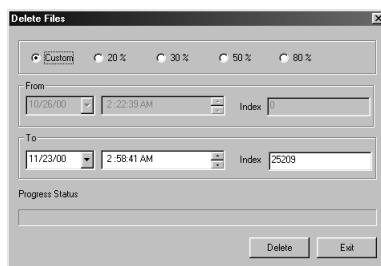
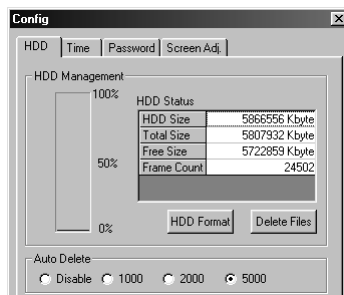
HDD: Configures the self-contained HDD:

- **HDD Management:** This shows the status of the HDD. The left side shows the same results in graphic format. You can format the HDD by clicking the 'HDD Format' button, as well as via the setup program.

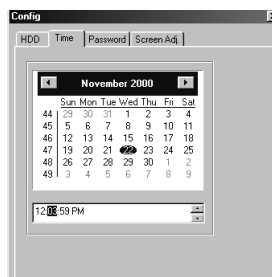
Auto Delete: You can automatically delete the data by 1,000, 2000, or 5000 frames from the first frame when the HDD is full. You can also disable the function.

Delete Files: You can delete recorded images. There are two methods of deleting.

- You can select a percentage of 20, 30, 50 and 80% of total data.
- You can define the period of data to delete by setting date or number of frame.

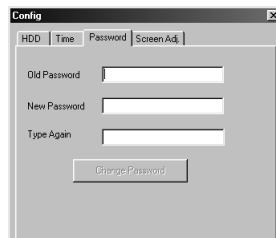


- **Time:** You can set data and time into your NetCam DVR.

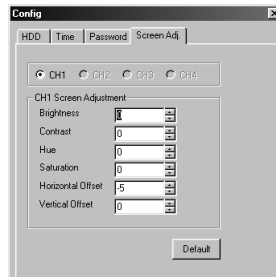


NetCam DVR**Section 3**

- **Password:** You can change the password. Key in the old password, then the new password twice. It is very hard to repair the password if you do not remember it. *The only way to repair, is to initialize with special software developed by Philips. However, this is not provided to end users.*



- **Screen Adj.:** You can adjust the screen display for brightness, contrast, hue, saturation, horizontal offset, and vertical offset. Adjustments affect the live image screen and the recorded image screen. However, the recorded screens are not affected directly. You can see the change when you replay the images that are recorded after the initial live image adjustment.

**Backup:**

This allows you to backup the recorded images from the NetCam DVR to your PC remotely via the network. There are two methods for backing up, 'Copy/Paste' and 'Cut/Paste'. If you click on 'Cut/Paste' button, you can only back up from the first frame that is recorded on HDD.

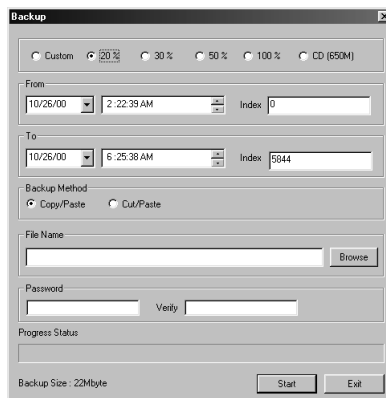


There are two ways to define the data period for backup.

- You can select a percentage of 20, 30, 50 and 100% of total data.
- You can define the date/time period for data deletion.

NetCam DVR**Section 3**

If you click the 'CD (650M)' option, the NetCam DVR will back-up a file of 650MB. If the selected data size is bigger than 650MB, the NetCam DVR will split the total data into partitions of 650MB. You can replay the data via the NetCam DVR Viewer by defining the data as local source. However, the first file of the split files will have the index data for total backed-up data files. It is necessary to make a directory on your PC and then copy all the files to replay back-up data if the total size of the back-up data is bigger than a CD's capacity,

**Save:**

Allows you to save an image from a selected screen. The 'Save' option is for recorded images from channels 1,2,3 or 4. The 'Save' button is not activated when you choose multi screen mode.

**Print:**

Allows you to print an image from a selected screen. You can add respective information about the selected images. When you click the 'Print' button, a window 'Memo' appears. The 'Print' button is for recorded images from channels 1,2,3 or 4. The 'Print' button is not activated when you choose multi screen mode.



NetCam DVR**Section 3****About:**

Allows you to view the information about the Viewer such as the current NetCam DVR Viewer version, and contact point of Philips to inquire about information.

**Exit:**

Exit from the Viewer. However, you have to disconnect first.

**3.4 Real-time image monitoring****Channel selection and controlling**

Channels that are receiving video signals are shown in black, the others in gray. When you access the NetCam DVR for the first time, all 4 channels are viewed in gray. Therefore, you should setup the NetCam DVR before connection.

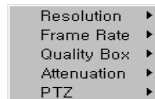


When you enable any channel, it appears in black. You can then view live images. Toggle the respective button to switch the image on/off.

Setting real-time image options

- Click the right button of your mouse on a live image screen.

You can adjust the live image resolution and frame transmission speed. You can also change the screen's form to show a pan/tilt/zoom control box. (If you did not activate the pan/tilt/zoom control function at setup stage, you cannot view the PTZ control panel.) The image resolution can be toggled from 'CIF' to 'QCIF' by double clicking on the live screen.



You can overcome the insufficient network bandwidth by focusing on a selected area with the 'Quality Box option'.

- Click the 'New' button to set a new focus area. First, place and click your mouse where you want to start and then click again where to stop.



NetCam DVR**Section 3**

- Click the 'Enable' button to focus on an existing defined area.
- Click the 'Disable' button to return to full view option.
- Click the 'Attenuation' button to change the unfocused area's image quality.

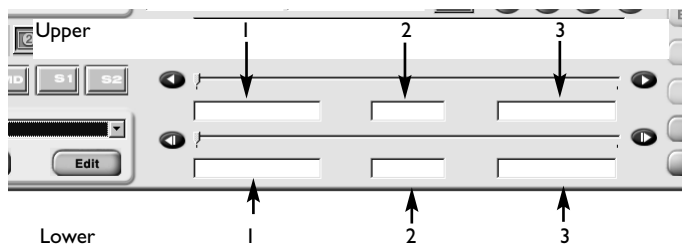
Controlling pan/tilt/zoom

(Only available when the pan/tilt/zoom option is enabled for the NetCam DVR.)

- Zoom: To zoom in and out.
- Accel: To set controlling speed of pan/tilt/zoom.
- Focus: To optimize the image focus.
- Four arrows: To change direction by panning and tilting the NetCam DVR.

**3.5 Recorded image replay**

Selecting period of time or frame number to replay



Upper part: This part shows the current 1,000 frames being replayed.

Lower part: This part shows the total selected recorded data.

NetCam DVR**Section 3**

Lower 1: Displays the NetCam DVR recording start date/time.

Lower 2: Displays the number of image frames recorded.

Lower 3: Displays the NetCam DVR recording finish date/time.

- Click on the forward/backward buttons to extend the replay period forward or backward by 1,000 frames for each click. The frame number panel (Upper 2) also changes by a unit of 1,000 frames.

Upper 1: Displays the NetCam DVR recording start date/time of the current 1,000 frames.

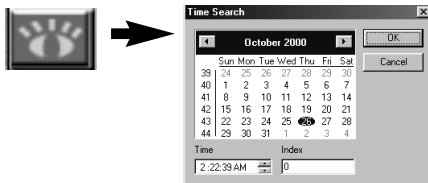
Upper 2: Displays the exact frame number of the current image.

Lower 3: Displays the NetCam DVR recording finish date/time of the current 1,000 frames.

- Click on the forward/backward buttons to skip the replay period forward or backward by 100 frames for each click. The frame number panel (Upper 2) also changes by a unit of 100 frames.

Search:

You can select a date and time or frame number to start replaying.

**Selecting images of events:**

All: Select all images that are selected for replay.

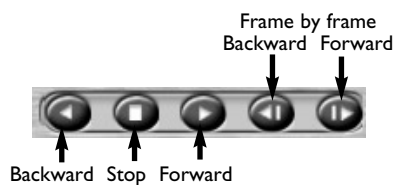
MD: Select the images that are recorded when the NetCam DVR detected motion function operates.

S1 & S2: Select the images that are recorded when the respective sensor detector activates. You can install 2 external sensors such as a thermal sensor and infrared sensor, and connect it to the NetCam DVR DB-15 port.

NetCam DVR**Section 3****Quad or full view options:**

Quad: You can view a quad screen, each screen corresponding to each channel.

Full: You can view a selected channel full screen by clicking '1', '2', '3', or '4'. When you want to see images of 720 by 486 resolution, you double click on the replay screen. Return to normal resolution of 360 by 243 by double clicking on the image again.

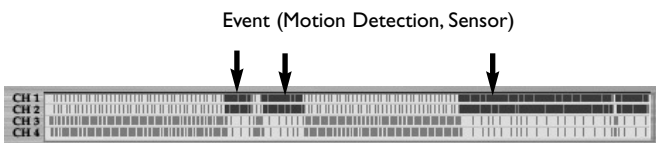
**Replay buttons:****Recorded Image Information Panel:**

This panel shows the information of the current image being replayed.

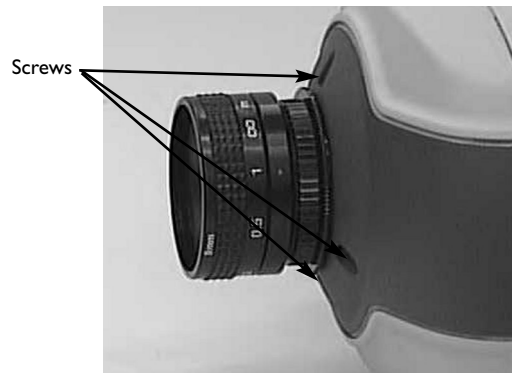


NetCam DVR**Section 3****Recorded Image Information Panel:**

Event indicating: When you replay recorded images with selecting event-detecting sources ('MD', 'S1', and 'S2'), this panel shows the events that occurred in a graphic form. You can search the exact time to search by dragging the scroll bar.



4 ADJUSTING FOCUS



- 1 First, adjust focus of the NetCam DVR by turning the front focus ring of the lens.
- 2 If you cannot focus with the lens, loosen the three screws in the rear focus ring.
- 3 Setting the lens at the middle range, focus by turning the rear focus ring.
- 4 When you have focused, tighten the three screws.
- 5 Complete the focus by turning the front focus ring of the lens.

NetCam DVR

Section 4

