

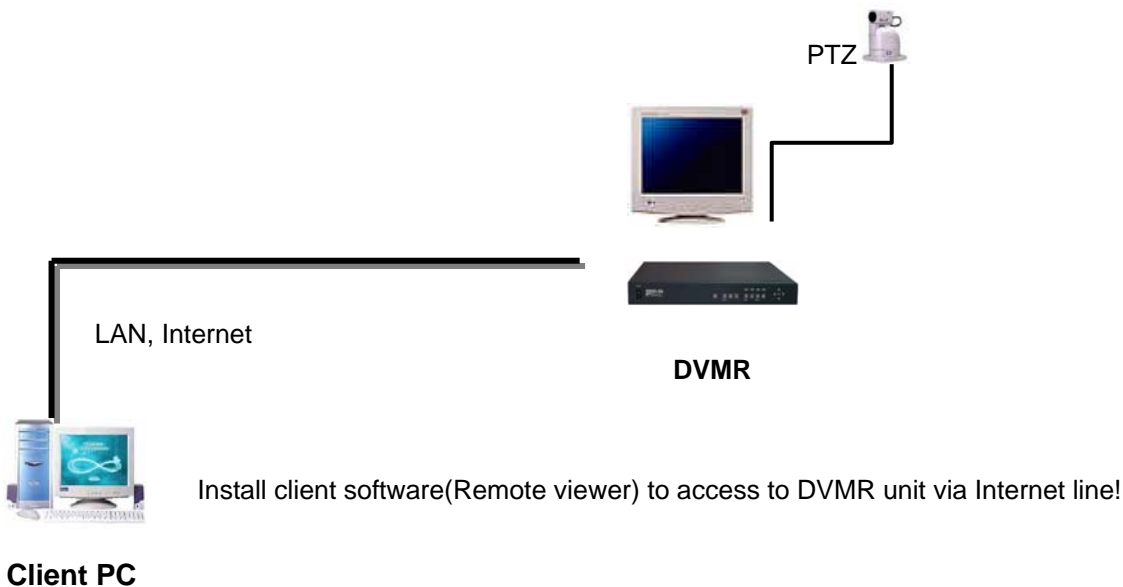
Free - Remote Viewer Software (TCP/IP)

General description : TCP/IP option enables users to view live pictures, search recorded pictures, or control PTZ camera via Internet line, far apart from the DVMR unit, and users can store selected recorded pictures on HDD of client PC. Our stand-alone DVMR does not adopted web browser method for access to DVMR unit via Internet line, and you must install Remote Viewer software included in the package on client PC before you try to access to DVMR unit over IP network.

1. TCP/IP SETUP in DVMR unit

Before you install Remote Viewer software, be sure to input IP address and others in TCP/IP SETUP of DVMR unit.

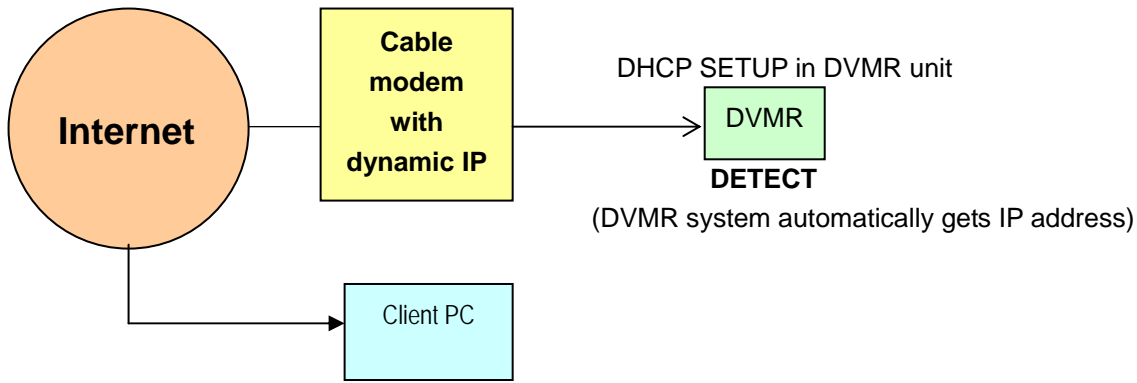
Then, execute **SETUP.exe** on Remote Viewer software CD included in the package of stand-alone DVMR with TCP/IP option.



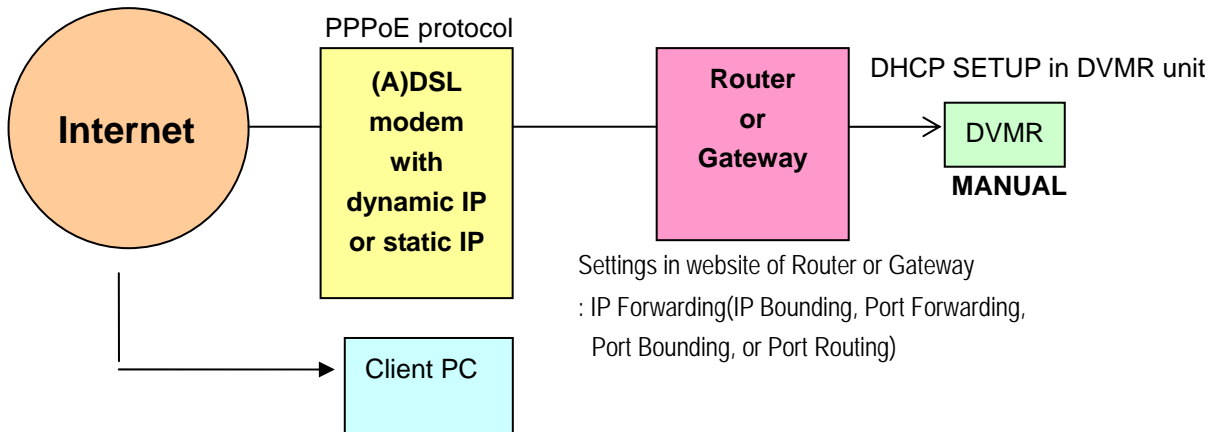
2. Conditions of IP network

To access to our DVMR unit via IP network, you have to connect DVMR unit to IP network as one of followings and assign IP address, Subnet mask, and Gateway to our DVMR unit. Our DVMR unit accepts static IP and it also work in case both DVMR unit and client PC are connected to the same Intranet (LAN).

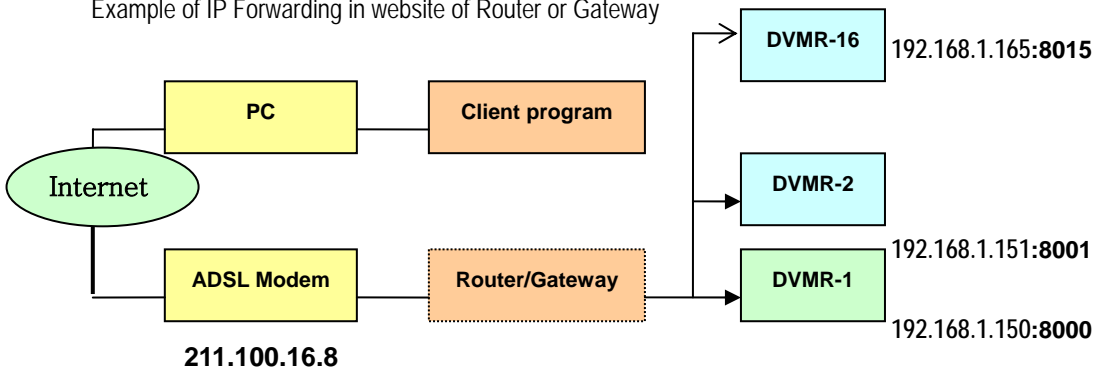
- Static IP : If DVMR unit is connected to leased line with static IP, we can access to DVMR unit via Internet line far apart from DVMR unit.
(DHCP SETUP in TCP/IP SETUP : **MANUAL**(Input IP address manually))
- Cable modem with dynamic IP : If DVMR unit is connected to cable modem with dynamic IP, we can access to DVMR unit via Internet line far apart from DVMR unit.



c) (A)DSL(ADLS modem with PPPoE protocol) line with static IP or dynamic IP



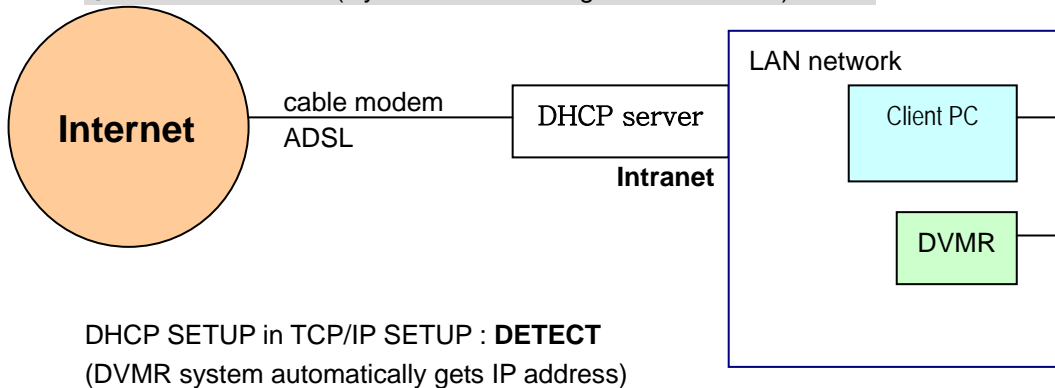
Example of IP Forwarding in website of Router or Gateway

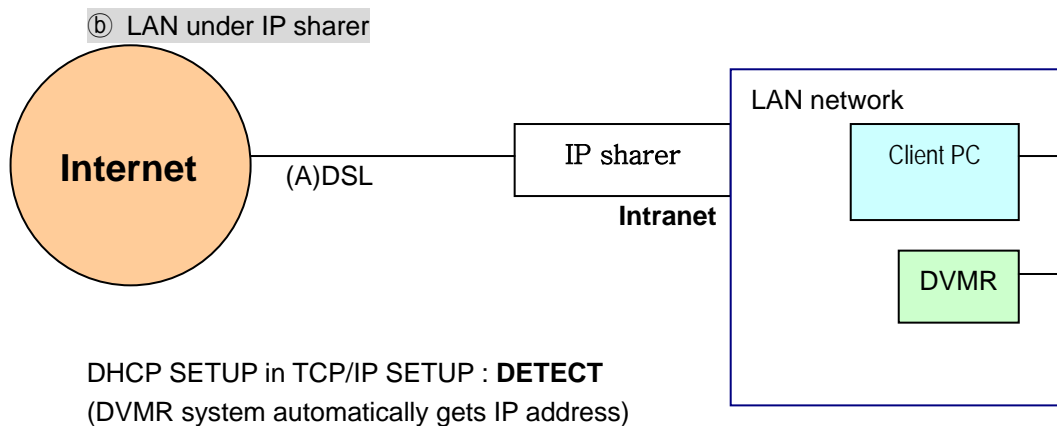


IP forwarding is what we have to set in web site of Router or Gateway to connect external Port to internal IP assigned by Router or Gateway.

d) In the same Intranet : Supports

① LAN under DHCP(Dynamic Host Configuration Protocol) Server





3. How to get IP for DVMR unit

There is 2 different ways to input IP address and other data into DVMR unit.

The first way is to make DVMR system get IP address from DHCP server automatically. It is only possible in case DVMR unit is connected to cable modem(dynamic IP), Intranet under DHCP server or IP sharer which support DHCP. Select "DHCP" in TCP/IP setup to get IP address automatically.

The second way is you get IP address and other data before you connect DVMR unit to network and later input this IP address and other data into DVMR unit. Except the case you already know IP address assigned for DVMR unit, get IP address for DVMR unit as following process in the client PC from which you want to access to DVMR unit via IP network. If you connect DVMR unit to leased line with static IP already known, it is not necessary to follow following process to get IP information.

a) "ipconfig" or "winipcfg"

Execute "ipconfig" command in the client PC with Windows 2000 and Windows XP, and "winipcfg" command in the client PC with Windows 98 and ME, and you will get IP informations, that are IP Address, Gateway, Subnet Mask. Write down those numbers and input into DVMR unit to which you are going to access via IP network. As far as DVMR is in operation without turning off, it is considered that this IP Address is assigned just to this DVMR unit. Then, restart the client PC to get different dynamic IP address for client PC after you get IP information for DVMR unit.

Derail procedure to get IP information in different Windows is as follows.

① Window 2000

First you need to get to the command prompt using the command shell. The best way is from the run menu.

Start--> Run --> and type in **Command**. Then either hit enter or click OK. At the command prompt, type in **ipconfig**. This will pull up the information that you need to find IP Address for DVMR unit.

② Windows XP

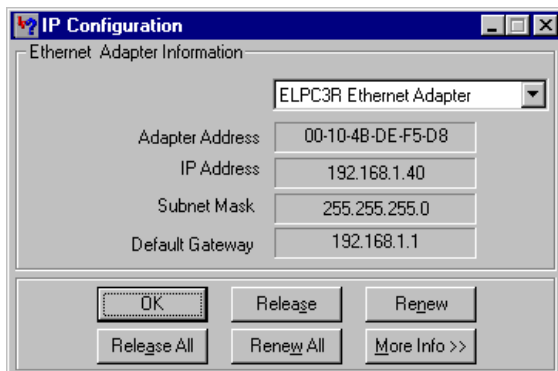
If you want to get IP Address for your DVMR in Windows XP, you can run **ipconfig** in one easy step. Open Run and type "cmd /k **ipconfig**" without the quotes. This will open the command prompt and start **ipconfig** the easy way. Assign IP Address you get to DVMR unit.

③ Windows 98 and ME

To run winipcfg, grab the Run item from the Start menu and type **winipcfg** into the Open: box. Hit OK (or return). Those comfortable with DOS can launch it from a DOS prompt.



When **winipcfg** launches, you'll get a window like this one:



Now, hit the "Release" button and then hit "Renew". If all goes well, you'll get new information, and it is for your DVMR unit. Write down this information on separate paper and input IP Address, Subnet Mask, and Default Gateway into your DVMR to which you want to access via IP network.

(c) Confirm if IP Address is working by executing pingtest

Execute pingtest with IP Address which you assigned to DVMR unit, check if it is successful before you try to access to DVMR unit via IP network. If it is not successful, you may not be able to access to DVMR unit via IP network, and we recommend you to get help from your network administrator.

4. Live view via IP network

Click Remote Viewer icon to view live pictures via IP network. You will see then following window.



Function of each button in live-view window :

- 1** : **Power** switch. Press power switch to quit. Before press power switch button, press disconnect button first.
- 2** : **Connect** button. Press connect button to connect to DVMR unit via IP network to see live pictures of DVMR unit.

You will see the same live pictures, which are displayed on monitor of DVMR unit with a certain time delay depending on transfer rate of IP network.

- 3 : **Disconnect** button. Press disconnect button to cut connection to DVMR unit via IP network.
- 4 : **Screen division** button. You can select to see pictures of any single channel, 4, 9, and 16 channels at the same time. You can select channel number from 1 to 16 to see pictures of selected channel. If you selected 4, you will see channel number from 1 to 4 are all activated.
- 5 : **Channel number** button. You can select channel number to see live pictures from selected channel.
- 6 : **Status** window. It shows Date and Time. Further it displays “Connection established” and a circular fan on the left bottom is rotating when connection button is activated, or “Waiting for connection” when disconnection button is activated.
- 7 : **Set** button. 2 different set buttons
 - a) **Setting** : Press this button to input IP Address(or select a unit of 16 ch DVMR unit among many) and others and to set circular monitoring interval and scan rate, to assign folder where you want to save pictures you will select during search, to input protocol for PTZ cameras or select any model of PTZ cameras among many models whose protocols you already input, as following dialog box.

The screenshot shows a 'Configurations' dialog box with the following fields and options:

- CONNECTION**
 - Name: test1
 - IP Address: 192 . 168 . 2 . 170
 - Port: 8000
 - User ID: admin
 - Password: [empty]
 - IP Load button
- OPTION**
 - Circula Monitoring Interval: 10 SEC
 - Scan Rate: 1X
 - Reconnecting Count: 3
 - Run in Full Screen Mode:
 - Receive Event:
- SAVE OPTION**
 - Set Path to Save Recorded: D:\공공문서\프로그램 (with Browse.. button)
 - Set Record Interval: 30SEC
 - Display Date:

CONNECTION

- On the Name box, you are requested to input name of 16 ch DVMR units, in case you want to access to any one DVMR unit among more than a unit. You can save IP information in Configurations Window and select name of DVMR unit to which you want to access.
- Input IP Address you already input into DVMR unit(TCP/IP SETUP) in **IP ADDRESS**.
- Input Port number you already input into DVMR unit in **PORT**. Just input 8000, which is default port number. In some cases, port number 8000 is blocked by firewall, and you have to input different number like 8090 which is not blocked.
- Input “admin” in **ID**.
- Input the same password you set into DVMR unit in **PASSWORD**.
Default password of 16 ch DVMR unit is blank(null). You are requested to enter your own password using number keys from 1 to 16 on front panel of 16 ch DVMR unit

OPTION

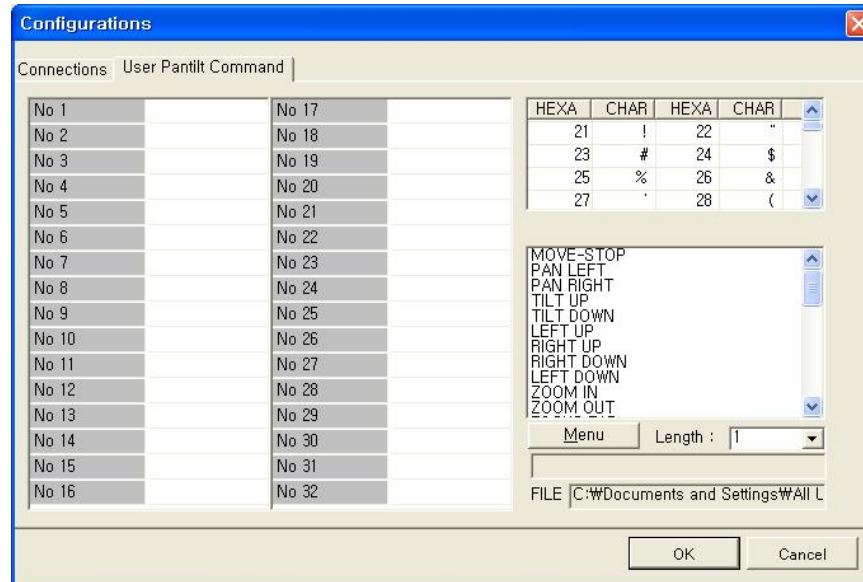
- Select **circular monitoring interval** ranging from 0.1 sec to 10 sec. The smaller it is, the faster picture of each channel rotates. The absolute circulation interval is a little different from set value depending on data

transfer rate of IP network.

- Select **scan rate** ranging from 1x to 64x. The larger it is, the faster search speed is. The absolute search speed is a little different from set value depending on data transfer rate of IP network.
- Reconnection count : In case disconnected due to some reason, client program tries to reconnect after this time.

SAVE OPTION

It is to assign folder on which you want to save pictures you will select while you search recorded pictures, picture by picture.



USER PANTILT COMMAND

- It is to input protocols for specific PTZ camera you will connect to 16 ch DVMR unit, to control PTZ camera while you see live pictures in the client program.
 - You can save protocols of specific PTZ camera in the form of computer file(text file). Prepare text file of protocol for PTZ camera and save it on your PC. In the User Pantile Command window, press [Menu] button and again press [Load User PT File]. Then you can assign text file of protocol for PTZ camera you prepared in advance. It is very convenient function.
 - If you want to control PTZ camera using buttons on the front of 16 ch DVMR unit, you must input the same protocol into DVMR unit in PAN/TILE CMD SETUP.
- b) **Scan** : Press scan button to enter into search window. Using various operation buttons, you can search recorded pictures, save selected pictures on client PC, or print pictures. Refer to following paragraph “3. Search recorded pictures over IP network” for details

8 : **PTZ control**. You can control Zoom, Focus, and Pan/Tilt of camera while you see live pictures via IP network. Of course, you must first input PTZ protocol for a specific PTZ camera you connected to your DVMR unit, into your DVMR unit.

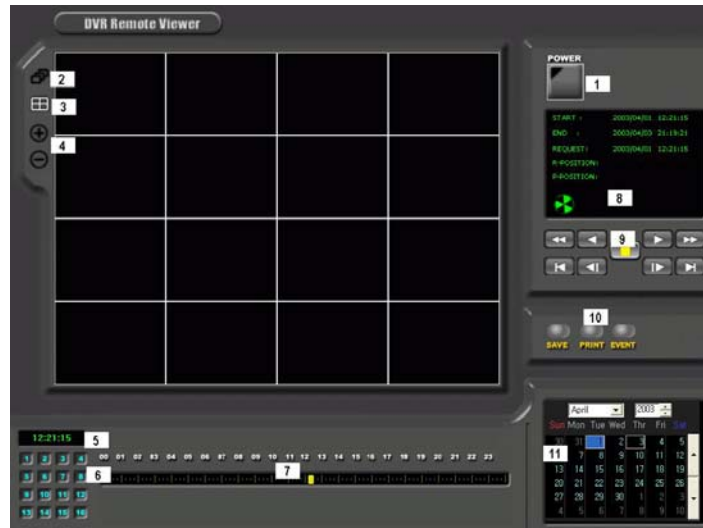
You can control PTZ camera with various of commands in USER PANTILE COMMAND window above.

When you press corresponding buttons for Pan/Tilt control, press a couple of second every time you press to take care of data transmission speed through IP network. Otherwise, there is a possibility that given protocol is transmitted repeatedly, regardless of your intention.

Notice : From time to time, connection shall be cut unexpectedly due to conditions of network line, and you will see

disconnect button(3) is activated. Just press connect button(2) again, and you can continue to see live pictures.

5. Search recorded pictures via IP network



Function of each button in search window :

- 1 : **Power switch**. Press power switch to quit.
- 2 : **Full screen button**. Press full screen button to search recorded picture channel by channel in full screen.
- 3 : **Quad button**. Press Quad button to search recorded pictures in quad screen, 4 pictures from 4 channels at the same time.
- 4 : **Screen division button** : If press "+" button, it screen division is changed from 4 to 9 or from 9 to 16. "-" button reduce screen division.
- 5 : **Time of recording**. It indicates when the pictures you see recorded.
- 6 : **Channel selection button**. Press any one from 1 to 4 to see picture of corresponding channel, if you first chose full screen button(2).
- 7 : **Time selection button**. You can set time to search by dragging yellow mover to the left or right. See time displayed in green color and find an exact time from which you search.
- 8 : **Start and end of recording**. It shows time from which recording started and recording ended. Further it show time from which search will start.
- 9 : **Search operation button**. You can search recorded data using various buttons useful for searching effectively as follows.



: Play fast backward
(Speed set in SYSTEM SETTING(4-7))



: Move to start of recording
(Press stop button first before this button)



: Play backward(x1)



: Move to previous hour(on the hour)
(Press stop button first before this button)



- : Stop



: Play forward(x1)



: Move to next hour(on the hour)

(Press stop button first before this button)



: Play fast forward

(Speed set in SYSTEM SETTING(4-7))







: Move to end of recording

(Press stop button first before this button)

Upper row

Bottom row

Speed of playback in DVMR unit according to scan rate set in 4-7-b).

Scan rate set in 4-7-b)	 or 	 or 
1x	1x	1x
2x	1x	2x
4x	1x	4x
8x	1x	8x
16x	1x	16x
32x	1x	30x
64x	1x	60x

Maximum playback speed of DVMR is 60x.

10 : **Command button**. We have 3 different buttons, that are, save, print, and event, and those buttons work only when stop button is pressed.

a) Save

During searching recorded pictures, you can save pictures one by one in the folder in client PC by pressing save button. Press Save button while you see recorded picture, and picture you selected by pressing Save button shall be save on the folder you already assigned under the file name of year-month-day-hour-minute-second in jpg format.

b) Print

During searching recorded pictures, you can print picture, one by one, you see, by pressing Print button.

c) Event

Press event button to see alarm list saved in DVMR unit, and you can search recorded pictures based on event list by clicking any one of list.

11 : **Calendar**. You can select date and time to search pictures recorded at selected time and date. You can refer to start and end of recording in 7.

Notice : From time to time, connection shall be cut unexpectedly due to conditions of network line. Whenever it is cut, quit search window by pressing power switch(1), and then press connect button in live-view window and scan button to enter into search window again, to continue searching.

Notice : Compatibility of Remote Viewer Software with different kinds of operating systems and PC hardware may not be simply specified due to the characteristics of network that it is much related with not only PC hardware and operating system but also other software installed on the client PC and conditions of network(internet) line. Basically, Remote Viewer Software is compatible with typical Windows operating system from Windows 98 to Windows XP.

Notice : To see continuous live view, we recommend not to select motion recording in RECORD SETUP menu of DVMR. If it is set at motion recording in SETUP menu of DVMR, image transmission is done only there is motions detected.

Notice : While you search recorded data using client software in client PC, DVMR unit to which you access via IP network is in playback mode, and no recording is done as far as you search recorded data. However, while you are in connection

with DVMR unit via IP network for live view, DVMR unit continues to record but at a little lowered recording rate. Therefore we recommend you to access to DVMR unit only when it is necessary.