# **Mounting and Operating Manual**

### **Dear Customer!**

By selecting this VC product you have chosen a professional device, which guarantees highest possible quality and reliability.

Please read the following instructions carefully before comissioning the product in order to be able to take full advantage of all quality features regarding this product line.

Digital Video Recorder

Art.No.: 15814

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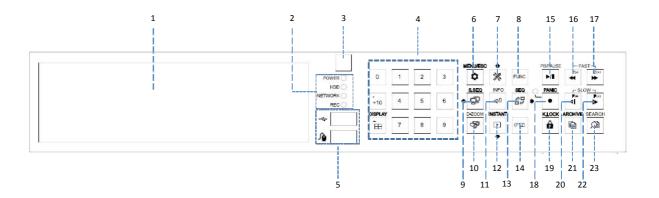
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## 1. BEFORE INSTALLING

- Installation should be carried out only by qualified personnel and in accordance with electrical regulations in force.
- The DVR must be placed on a stable surface or mounted in an approved cabinet. Adequate ventilation must be provided, taking particular care not to block any of the air vents on the DVR.
- Adequate protection against lightning strikes and power surges must be installed to prevent damage to the DVR.
- Any safety warnings on the DVR and in these instructions must be adhered to.
- If cleaning is necessary, shutdown the DVR and disconnect the power source first. Use a soft dry cloth only never use an abrasive cleaner.
- Do not attempt to service or repair the DVR as opening or removing covers may expose dangerous voltages or other hazards. Refer all servicing to qualified service personnel

## 1.1 FRONT AND REAR



### 1.CUSTOMER'S BRAND LOCATION

#### **2.STATUS LED**

Displays the information of the DVR (Stand –By), Record / HDD read/write and Network transmission.

### **3.IR RECEIVER**

Infrared signal receiver for the IR remote controller.

### **4.CHANNEL SELECT / NUMERIC KEYPAD / MULTI**

- Selects the desired channel and show it with the full scale.
- Enter the number on the numbers required to be input, Password, IP address, Time & Date and Etc.



### 5.FRONT USB 1.1 / 2.0 PORT

USB 2.0 ports. Provides functions like 'Copy to USB st orage', 'F/W Upgrade' and Etc.

USB 1.1 ports. Provides functions like 'Mouse Operation'

### **6.SPOT MONITOR / ESC**

- Calls and gets into the main menu.
- Returns to previous menu screen.
- Exits from various function and menu screens.

### 7. ToolBar / UP

- Calls and gets into the Tool Bar.
- Tilts up in PTZ control mode.
- Move the cursor up in the menu.

### **8.FUNCTION**

 If you press "Function Key", function list of DVR will be displayed. If you press "Function Key + Tool Bar / Up Key", video out resolution of HDMI / VGA will be changed.

### 9. SPOT AUTO SEQUENCE / LEFT

- Activates and deactivates the automatic channel spot sequence. (Available at 960H model)
- Pans left in PTZ control mode.
- Moves the cursor left in the menu screen.

### 10. DIGITAL ZOOM

Enters digital zoom mode.

#### 11. INFO

- Executes the selected function in the menu screen or enters the selected submenu.
- Accesses the status window from the live screen.

#### 12. INSTANT PLAYBACK

 If you press "Instant playback" key, instant playback will be started at present time. At multi-screen mode, channel number 1 will be playback. At full screen mode, each channel will be playback.

### **13. AUTO SEQUENCE**

Activates and deactivates the automatic channel sequence.

### **14. AUTO SEQUENCE**

• Enters PTZ control mode.

### 15. PLAY / PAUSE

• At playback mode, Pause / Play key will be toggled.

### **16. REVERSE FAST**

 At playback mode, max X 120 reverse playback speed supported.

### **17. FAST**

 At playback mode, max X 120 forward playback supped supported.

### 18.PANIC RECORD

• Activates the panic record mode.

## 19.KEY LOCK

• Activates the Key Lock mode.

### 20.REVERSE SLOW

 At playback mode, max X 1/120 slow reverse playback supported.

### 21.ARCHIVE

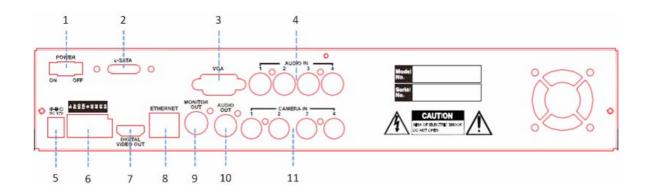
• Enters the archive menu screen.

### **22.SLOW**

 At playback mode, max X 1/120 slow forward playback mode supported.

### 23.SEARCH

• Enters the search menu screen.



### 1.Power Switch

Switch to turn the DVR ON & OFF.

#### 2.eSATA

External SATA ports for 70H+ series. Not installed for 50H+ series.

### 3.VGA Output (Video Graphic Array)

15-pin D-sub connector for the analogue VGA output.

### **4.Audio Inputs**

RCA connectors for the audio signal inputs. (Line In)

### 5.Power In

DC Power socket.

### 6.Alarm(Sensor) Inputs, RS-485, and Relay Output

- Alarm inputs x 4
- RS-485 Signals. (G: Ground, D+: RX/TX + signal, D-: RX/TX-signal)
- Relay output for the relay 1 (NO: Normal Open, NC: Normal Closed, CM: Common)

### **7.DIGITAL VIDEO OUT**

HDMI video output for the main monitor.

### 8.RJ-45 Ethernet Port

10/100 Base -T, RJ-45 port for network connection

### 9.Main Monitor Output

 $\label{eq:composite} \begin{picture}(200,0) \put(0,0){\line(0,0){100}} \put(0,0){\line(0,0){100}}$ 

(BNC)

### 10.Audio Output

RCA connector for the audio signal output. (Line Out)

### 11.Video Inputs

MV-7004H: Analog Camera Inputs

MV-8004S: HD-SDI video inputs for each camera

### 12.SPOT Video Output(MV-7004H Only)

One channel SPOT Video Output (CVBS)

## 2. GETTING STARTED

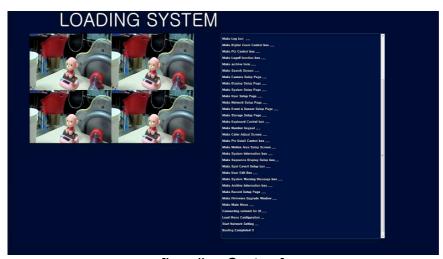
## 2.1 CONNECT AND SWITCH ON

Connect up to camera inputs.

Connect one or more monitors to the MV-7004H / MV-8004S using HDMI, VGA, CVBS.

Connect power to the MV8004S. Press the power button on the back panel of the MV8004S to begin operation.

[Logo Image]



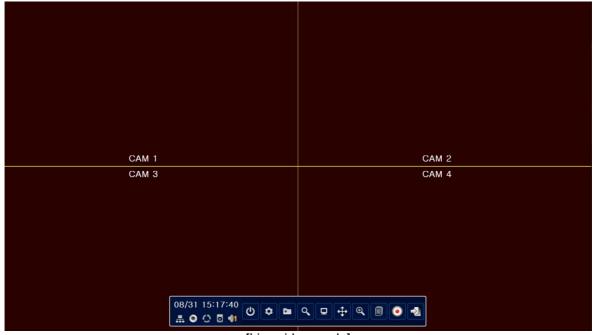
[Loading System]

When you system boot up, you can view system loading process like above image after boot up logo image.

After startup diagnostics are complete, the operator must log-on to the system. The default user name is "ADMIN". Using **the mouse or channel selection buttons**, key in the default password of "1234" and press the enter button



[Log In]



[Live video mode]

The MV7004H/MV8004S begins normal operation and shows the default display of all 4 channels. The Tool bar at the bottom of the screen shows current time and date. Tool bar includes Log In-Out, Menu, Archive, Search, Display, PTZ & Zoom control, log along with panic record.

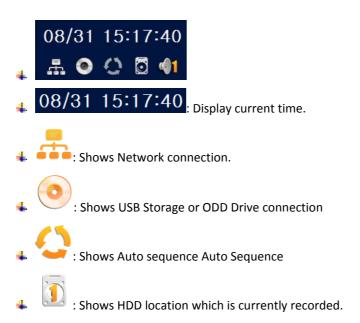
## 3. TOOL BAR

You can view following Tool Bar when you move the mouse to the bottom of screen or press "Tool bar button" at front panel.



## 3.1STATUS DISPLAY

You can check current time / Network connection/ USB storage connection/ Auto sequence/ HDD location currently recorded.



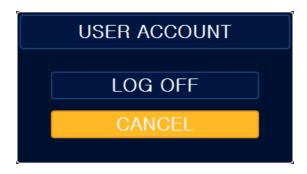
## 3.2LOG OFF

There are two way for log off. One is manual log off and the other one is automatic log off after configured time passed.

[Log-Off by using TOOL BAR]



If you press LOG OFF button, current user will be log out.



Once user log out, you can view log in window.

And also, you can set up the log out menu at Manin menu for automatic log off.

## 3.3MAIN MENU POP-UP

If you press main menu button, main menu will be POP-UP.



## 3.4ARCHIVE MENU POP-UP

If you press Archive menu button, Archive menu will be pop-up Note) Archive menu will be supported in next firmware released.



## 3.5SEARCH MENU POP-UP

To search for a particular section of recorded footage, press the **SEARCH** button.

To protect unauthorized viewing of footage, only authorized users can playback footage.



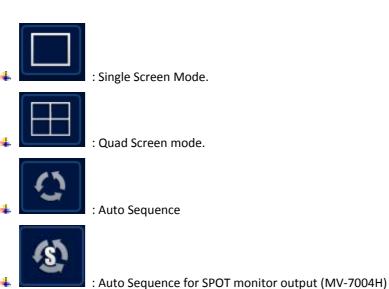
## 3.6DISPLAY POP-UP

You can configure display mode by pressing display button of Tool bar.



You can select Quad / Single/ Auto sequence/SPOT sequence(MV-8004H) by selecting item in pop-up menu.





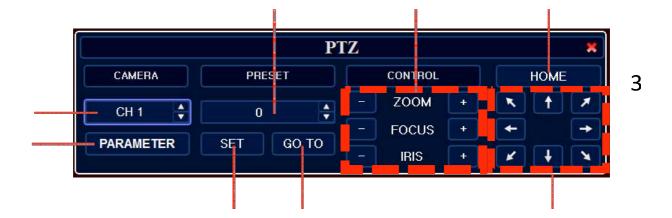
## 3.7PTZ MODE

You can move to the PTZ control mode.

When the display mode is quad, the PTZ control panel will be opened for the selected camera which is previously highlighted by mouse click. If there is no highlighted camera, the PTZ control panel is opened for controlling the camera 1.

In single display mode, the PTZ control panel is opened for the currently displayed camera.





- 1 : Select channel for PTZ control .
- 4 2 : Display PTZ control parameters which are set under the 'DETAIL' of PTZ menu settings
- 3 : Number to configure Preset .
- 4 : Select current screen as Preset.
- 5 : Move to configured Preset Number.
- ♣ 6 : Control the value of Zoom/ Focus/ Iris.
- 7 : Move the PTZ camera to Left/ Right/Tom/Bottom
- 4 8: Move to the Home position of PTZ camera.

## 3.8DIGITAL ZOOM

You can move to the Zoom mode by selecting the menu in Tool bar.

You can use mouse or tool bar to zoom in or Zoom out.

## [Zoom by using TOOL BAR]

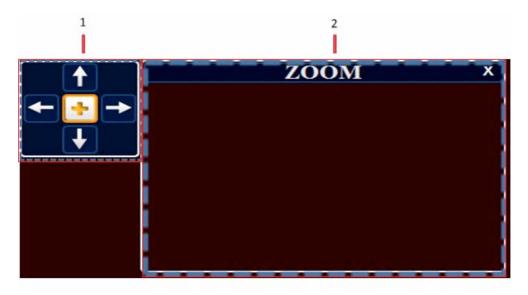
At 4-Split screen mode, you have to enter Zoom mode through channel number 1.

At Full screen mode, you can enter Zoom mode at current Full screen.



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- ♣ 1 : You can move Zoom Box
- : If you press this button, you can control zoom box by 5 levels.
- 2 : Currently Zooming screen.

### [Zoom by using Mouse]

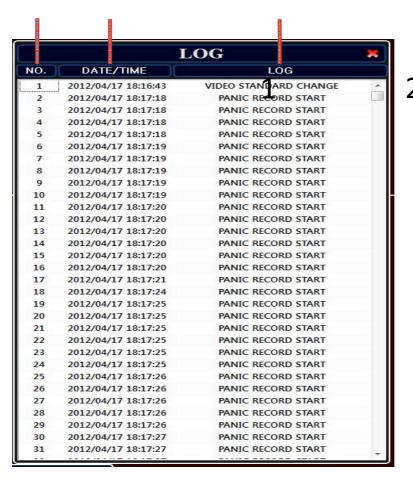
At full screen mode, you can select the area to zoom in/out by clicking left button of Mouse. (Drag), Clicking on the zoom-ed screen, the display returns to the original screen.

- ♣ Digital Zoom supported at Live / Play mode
- Digital Zoom supported at only Full screen mode.

## 3.9LOG LIST

You can view the log list by selecting log list button in Tool bar.





- 4 1 : Display from currently triggered (Max 10,000 list can be recorded)
- ♣ 2 : Date / Time
- 4 3 : Log list
- Items listed in log list.
  - Menu Changed
  - Power ON/OFF
  - Panic Record ON/OFF
  - ➤ Log In / Off
  - Client Connect / Disconnect
  - Time Set: Clock is set by user
  - > Time Adjust: Clock is adjusted by the NTP
  - > Copy: The recorded data is copied out.
  - > ENV Load: Menu setting is loaded from the external storage such as USB stick.
  - **ENV Save: Menu setting is saved to the external storage such as USB stick.**
  - ► HDD Bad Sector: Bad Sector of HDD or similar access failure happened
  - ▶ HDD Error: Error happened during the HDD I/F but HDD still can be accessed.
  - ► HDD Fail: Impossible to recognize or access to HDD any more.
  - Fan Error:
  - Watch dog

- Menu Initialize
- HDD Initialize
- Media Backup I/O Error
- ➤ Media Backup I/O Fail

## 3.10 PANIC RECORD

You can make "Panic Record" as ON by selecting panic record button in Tool bar menu.



PANIC REC START: Starts the panic record mode. Use the Left mouse click to select.

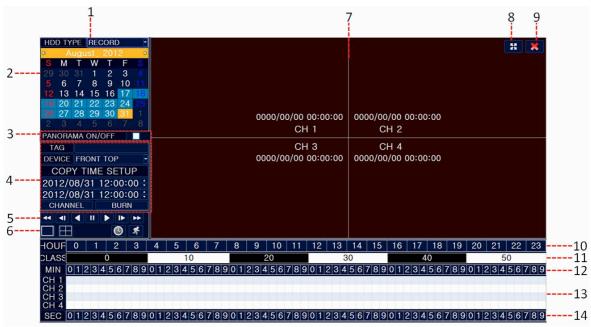
If you make Panic Record as on, recording mode will be changed to Panic record mode already configured in record menu.

Panic record will be stopped after panic record time passed at Record menu/ Misc.

## 4. SEARCH & PLAYBACK

## 4.1TIME / CALENDAR SEARCH

The MV8004S uses a calendar and timeline search method for quick access to recorded footage.



- 1: SEARCH HDD: You can select the HDD to search
  - > RECORD: You can search HDD selected as Record.
  - MIRRORING: You can search HDD selected as Mirroring.
- 4 2 : CALENDAR : Current time will be displayed. If the data recorded in each date, orange color will be displayed.

If you select the date having the recordings, you can make a display of recorded data by hour.

- 4 3: PANORAMA ENABLE: If you enable this, search mode will be changed to panorama mode.
- 4 : COPY : You can copy the data to external storage.
- 5 : PLAY CONTROL : Playback speed and direction control.
  - : Reverse Fast Play
    : Reverse Slow Play
    : Reverse Play
    : Reverse Play
    : Pause
    : Play
    : Slow Play

: Fast Play

6: QUAD / SINGLE: Change the playback screen

QUAD: Quad screen playback modeSINGLE: Single screen playback mode

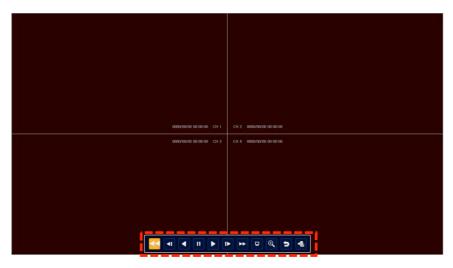
TIME / EVENT : You can select "time line screen" or "event list screen".

> TIME : Display Time line

EVENT : Display Event list screen

7: VIDEO WINDOW: Searched video will be displayed here

♣ 8 : FULL SCREEN : You can make a playback at full screen mode



You can control playback screen while playing back by using play control bar.



: Return to Search menu.



: Close playback screen and return to live screen

- 9: When you return to live menu from Search Menu
- 4 10 : HOUR SELECT LINE: Display time at Time line mode. If certain time has recorded data, blue color will be displayed.

If you press "Front enter key" or click left button of mouse on the desired hour, selected time will be displayed by minute.

4 12 : MINUTE SELECT LINE: You can search the data by minute through this. If certain minute has recorded data, the blue color will be displayed.

If you press "Front Enter Key" or click left button of mouse, playback will be started from selected time.

- 4 13 : RECORD DATA STATUS: You can view recording status of each channel. The blue color shows recorded data.
- 14 : SECOND SELECT LINE: You can select the data by second after playback started by choosing the desired minute. If you press "Front enter key" or click left button of mouse, the playback time will be moved to selected second.

## 4.2PANORAMA SEARCH



- If you enable, PANORAMA, search mode will be changed to PANORAMA Mode.
- 4 If you select the date of Calendar, panorama playing back will be started from first recorded data in selected date.
- 4 If you didn't select Calendar, panorama playback will be started from most fasted date.
- 4 16ch display mode will be displayed at first panorama search mode.
- ♣ You can make a display of channel 1 4 Channel.
- You can select channel for panorama search.
- You can make a panorama search by one hour.
- You can select the time for panorama search.
- You can make a panorama search by minute.
- You can select a minute for panorama search.
- ¥ You can make a panorama search by second.
- If you select the time, panorama playback will be started.



: Shows previous panorama.



: Shows next panorama

## 4.3EVENT SEARCH

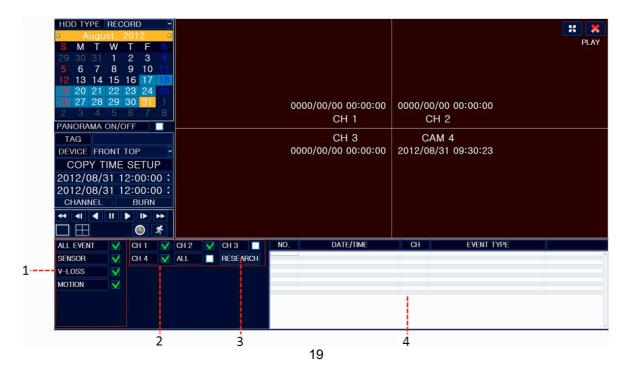


If you search the Event, you need to select time through Pop - up menu of time line.

If you press "Front Function Key" or click right button of mouse, following window will be displayed.



If you press Event, Event Search will be started from selected start time.



- 4 1: You can configure Event Type will be displayed in Event list.
  - ➤ ALL EVENT : Display all events.
  - > SENSOR : Display Sensor Event.
  - > VIDEO LOSS : Display Video loss Event.
  - MOTION DETECTION : Display motion Event .
- 2 : You can select channel will be displayed in Event list.
- 4 3: With the search condition defined in the above 1 & 2, execute the event search again.
- 4 : Maximum 10,000 events from most recently triggered will be displayed by one time.
  - > DATE/TIME : Display Event triggered time.
  - > CHANNEL : Display Event channel
  - EVENT TYPE : Display Event type.
  - Note) If you want to re-configure the time of Event search, you have to move to Time line mode to configure.

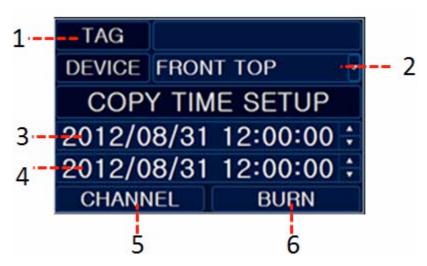
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## **4.5COPY**

There are two ways to input the copy time.

One is that you can manually selected the 'From' and the 'To' in the 'COPY' panel. And the other is that taking the 'Start time' and 'End time' by right-click on the required time in the 'MINUTE SELECT BAR'



- 1 (TAG NAME): You can name copy data.
- ♣ 2 (DEVICE): You can select the port for USB to copy.
- 4 3: You can select the stat time to copy.
- 4 : You can select end time to copy.
- ♣ 5 : You can select the channel to copy.



- You can select Start/ End Time at Time line to copy.
  - > If you press "Front Function Key" or click right button of mouse, following window will be displayed.
- 6 : Start Copy.



- ✓ Shows copy progressing.
- ✓ You can stop the copy.

## **5. QUICK MENU**

If you are using the USB mouse to control the MV8004S pressing the right button of mouse will bring up the Quick Menu.

- FREEZE ON: If you press Freeze button, all screen will be stopped.
- FREEZE OFF: You can release Freeze mode by pressing Freeze Off.



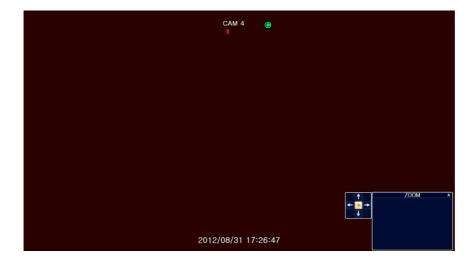
♣ PTZ: Selecting PTZ will bring up the <u>PTZ control screen</u>. PTZ can only be controlled by an authorized user.



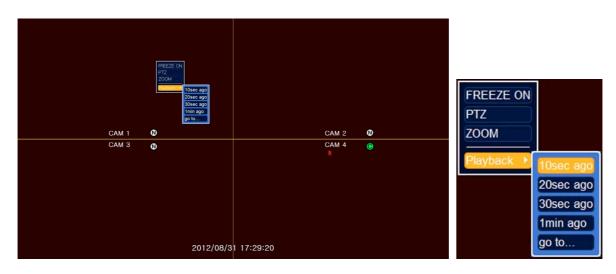


**♣** ZOOM : This execute the <u>digital zoom control screen</u>.





■ INSTANT PLAYBACK: Selecting PLAYBACK will allow the user to view instant playback of the selected camera from 10, 20, 30 seconds or 1 minute ago. If GO TO is selected the user can select the time they wish to view.

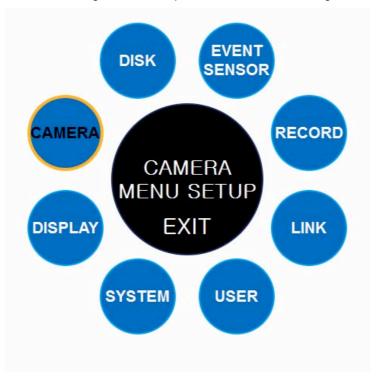


Once executing the instant playback, the instant playback window will pop-up such as below picture.



## 6. HOW TO CONFIGURE

To view the setup menu in each configuration items, press menu button. Following screen will be displayed.



## **6.1CONFIGURING CAMERA**

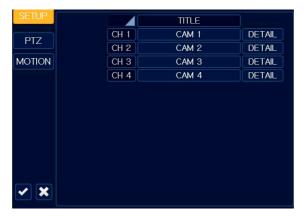
To set-up the various camera options, highlight CAMERA and press ENTER.

### **6.1.1 SETUP**

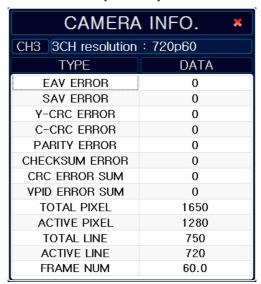
🖊 TITLE: For each camera, a title of up to 8 characters can be set using the virtual keyboard.



♣ DETAIL[MV-8004S Only]: Click the 'DETAIL' button at the left side of each channel will open the 'CAMERA DETAIL INFO.' window and show the detail HD-SDI camera information such as below.



[MV-8004S]



### 6.1.2 PTZ

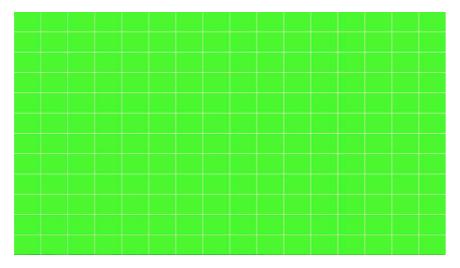


- ADDRESS: The unique ID of the PTZ device.
- ♣ PROTOCOL: The protocol of the PTZ device.
- ♣ BAUD RATE: The baud rate of the PTZ device.
- ♣ PTZ properties can also be adjusted for each channel by selecting the DETAIL and pressing ENTER. Auto Focus, Auto IRIS, P/T speed, zoom speed, focus speed, IRIS speed
  - Note that some settings, such as AUTO FOCUS, may not be compatible with particular PTZ equipment. If this is the case, changing this value will have no effect on PTZ control.

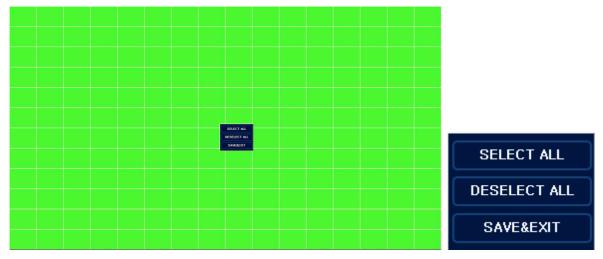
## **6.1.3 MOTION**



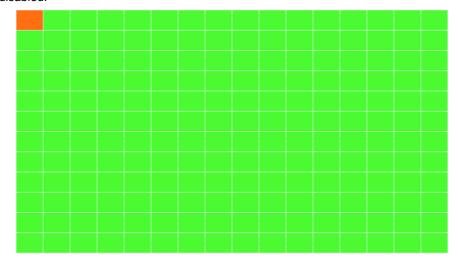
- **SENSITIVITY**: Between 1 (Lowest) and 10 (Highest) determines the degree of sensitivity of motion dectection required.
- **AREA SETUP**: Choosing this option allows the operator to define which areas of the image are monitored for motion detection. Green grid squares represent detection areas, blank areas are ignored. The default is that motion will be detected across the entire image.



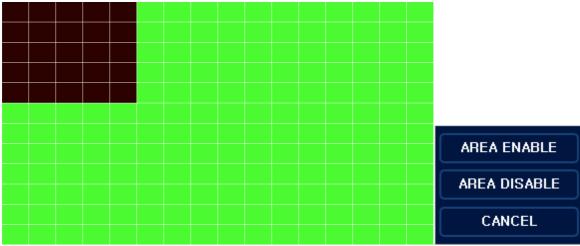
To quickly select or deselect the entire grid, use the Right mouse click to bring up the motion menu.



To select or deselect specific areas, use the left mouse click. Clicking on each cell toggles the setting to be enabled or disabled.

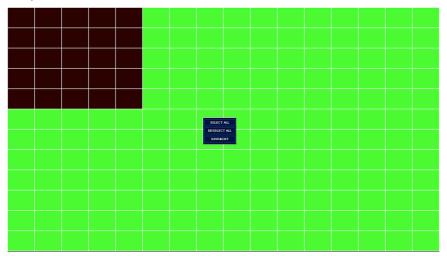


By dragging with the left button down, the rectangle area can be selected. Selecting 'AREA ENABLE' or 'AREA DISABLE' after dragging will define the activity of the selected area. Refer to the below picture.



Repeat the above sequence as necessary to mask-off or include other areas of the image

Once the detection area has been defined, choose SAVE & EXIT to save the area and return to the motion setup menu



## 6.2CONFIGURING DISPLAY

To set-up the various display options, highlight DISPLAY and press ENTER.



### 6.2.1 OSD

- ♣ ALARM POP-UP MODE: When set to ON, an alarm input will cause the associated channel to display full screen.
- **STATUS BAR TIMEOUTt**: Turns the Tool bar at the bottom of the live display ALWAYS ON or auto off delay time.
- **CAMERA TITLE**: Determines whether the camera title is displayed.
- **RECORDING MODE ICON**: Determines whether the recording status is shown at the top right of each channel display window.
- **BORDER**: Determines whether there is a border around each channel in multi screen display mode.
- **BORDER COLOUR**: If the border is ON, the operator can choose the color.
- **EVENT ICON**: Determines whether the event icon is displayed.
- LANGUAGE: Select the language of display.

### 6.2.2 MONITOR



- **ALARM POP-UP MODE:** When set to ON, an alarm input will cause the associated channel to display full screen.
- **ALARM POP-UP DWELL:** Determines how long the full screen popup is displayed after an alarm input. If the alarm condition continues, the popup screen is displayed constantly.
- **MOTION POP-UP MODE:** When set to ON, motion detection will cause the associated channel to display full screen.
- MOTION POP-UP DWELL: Determines how long the full screen pop-up is displayed after motion detection.
- 4 If motion continues, the popup screen is displayed constantly.
- ♣ MAIN VIDEO OUTPUT MODE: You can configure video output resolution of main video like 480I / 576I / 800x600 / 1280x1024 / 1080P 60Hz / 1080P 50Hz.
- ♣ OK: You can press OK button to check configured video output.
- 🜲 ADJUST MAIN VGA H POSITION : You can control the value of VGA video output .
  - Note) Available at only VGA monitor connected.

### 6.2.3 SEQUENCE



♣ SEQUENCE DWELL: The time that each screen is displayed in a sequence operation.

## **6.3CONFIGURING SYSTEM**

To set-up the various system options, highlight SYSTEM and press ENTER.



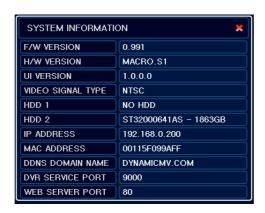
### 6.3.1 DATE/ TIME

- ♣ DATE&TIME: Allows the operator to set or modify the current date & time.
- DATE FORMAT: Determines how the date is displayed.
- TIME FORMAT: Determines how the time is displayed.
- NETWORK TIME SERVER SETUP: If the MV8004S is connected to the Internet, you can synchronize the time and date with sever.
- ♣ INTERVAL : Configuration synchronize interval with Network Time server.
- ♣ TIME ZONE SETUP: Should be set according to the region that the MV8004S is used in.
- L.S.T.: When set to ON, the MV8004S will automatically adjust the time by one hour on the relevant date in spring and autumn
  - > From : D.S.T : Start time of DST
  - To: D.S.T: End time of DST.

### **6.3.2 MANAGEMENT**



- SYSTEM INFORMATION: Select INFO to display
- F/W VERSION: Shows the firmware version of the MV8004S.
- H/W VERSION: Shows the hardware version of the MV8004S.
- UI VERSION: Shows the UI version of the MV8004S
- VIDEO SIGNAL TYPE: The MV8004S can be selected between PAL and NTSC via a selector
- HDD1: Shows the hard drive 1 capacity installed.
- HDD2: Shows the hard drive 2 capacity installed.
- ♣ IP ADDRESS: Shows either the manual IP address entered in NETWORK setup or the IP address assigned by a DHCP server if enabled.
- MAC ADDRESS: Shows the MAC (Media Access Control) address of the MV8004S. It is unique no other network device has this MAC address.
- ♣ DDNS DOMAIN NAME: If DDNS is enabled, the host DDNS server is specified here.
- ♣ DVR SERVICE PORT: The port number the DVR uses for internal networks.
- ♣ WEB SERVER PORT: The port number that the DVR uses to support remote connections.



SYSTEM NAME: A system name of up to 15 characters can be defined. It is used so that notification emails can be identified.

- F/W UPGRADE: Firmware updates may be released periodically to enhance system performance and add extra features. The operator can upgrade the firmware using a USB memory stick.
  - Note) To upgrade firmware, you have to use top pot of USB ports.
- FACTORY DEFAULT: If settings have been changed which causes erratic behavior, the factory default settings can be loaded.
- SYSTEM DATA: System settings can be saved to a USB memory stick. The settings can be reloaded in case of accidental factory reset or can be transferred to another MV8004S if multiple units need to be installed with the same settings. All information is saved including network settings and system name.
  - Note) You have to use top port of USB ports for System data backup.
- ♣ PASSWORD: Selects if a password is required 'ON / OFF'.
  - Note) Password must be selected to 'ON' if USER MANGEMENT options are required.

### **6.3.3 SOUND**



- LIVE AUDIO: If you select "on", Audio output is available at Live mode.
- ♣ DEFAULT AUDIO CHANNEL: Specify which one of the 4 AUDIO INPUTS is routed to the AUDIO OUTPUT when the MV8004S is in quad screen mode.
- FRONT PANEL KEYPRESS: When set to ON, each front panel button press is confirmed by a beep. This setting will also turn the IR Remote confirmation beep on or off.

## 6.4 CONFIGURING USER

To set-up the User Authority options, highlight USER and press ENTER

### **6.4.1 USER REGISTER**







By default the MV8004S is configured with a USER ID of ADMIN belonging to the ADMIN group and with a password of 1234.

As well as the ability to add new users, existing users defaults can be modified.

The maximum number of users that can be created is 8.

To modify user details, highlight the user with the blue cursor or press ENTER. The EDIT screen appears.

- USER ID: Edit the user ID using the virtual keyboard. (Max 10 characters).
- PASSWORD: Change the password using the virtual keyboard. (Max 8 characters)
- ♣ Please note: To delete the existing password use the "
  Clear
   on the virtual keyboard.
- E-MAIL: Enter the user's email address if email notifications are required.
- **♣** E-MAIL NOTI: Enable or disable email notification for the particular user.
  - Note) Maximum 10 users can be registered.
  - NOTE) Any user can be deleted except the default ADMIN user.

### **6.4.2 USER AUTHORITY**



User authority (except ADMIN) can be selected.

- Search & Play : Right to enter Search Menu/ Instant Play
- Archiving : Right to enter Archive Menu
- ♣ PTZ Control : Right to enter PTZ Control menu
- ♣ Power OFF : Right to enter Power Off
- Camera: Right to see camera screen.
  - > Detail: Configure the channel assigned for user.

# **6.4.3 LOG OUT**



- ♣ AUTO LOGOUT: Selects if auto log-out is ON or OFF.
- ♣ DURATION: If auto log is set to ON this determines the time. (in 1 10 Min)

Press APPLY( ) to save settings

# 6.5 CONFIGURING NETWORK

To set-up the Network options, highlight NETWORK and press ENTER.



#### **6.5.1 IP SETUP**

- DHCP: When selected the DVR will obtain an IP address automatically if connected to a DHCP server or router.
- ♣ IP ADDRESS: If DHCP is not being used the IP address can be manually set.
- ♣ GATEWAY: If DHCP is not being used the Gateway can be manually set.
- SUBNET MASK: If DHCP is not being used the subnet mask can be set manually.
- 4 1ST DNS SERVER: If DHCP is not being used the 1st DNS server can be manually set.
- 4 2ND DNS SERVER: If DHCP is not being used the 2nd DNS server can be manually set.
- Large Port 1 by DVR PORT: The port number that the MV8004S uses to support to the remote software.
- WEB SERVER PORT: The port number that the MV8004S uses to support remote connection from Internet Explorer or other web browsers.
- MAX TX SPEED: Specifies the maximum bandwidth that the MV8004S can use during a remote connection.
  - Note) Both DVR & WEB SERVER PORT will need a firewall rule creating for remote Connection
  - Note) uPNP (Auto Port Forwarding) is activated always background.

#### 6.5.2 DDNS



**♣** DDNS: When enabled the MV8004S can be accessed through a <u>dynamic DNS server</u>. Commonly used if a broadband connection does not have a static IP address.



to save settings.

### 6.5.3 **EMAIL**



- USE DEFAULT SERVER: Selects On or OFF. If you make Default sever as ON, mail will be sent by our own mail server ( MV mail sever) .
- ♣ SERVER: The SMTP outbound email server that should be used to send email notifications.
- PORT: The outbound email port number.
- Let SECURITY: Set to OFF if the SERVER does not require a username and password to connect.
- ♣ USER: Enter a username to identify the MV8004S in email messages.
- PASSWORD: If SECURITY is set to ON, enter the password here.
- FROM: Input an email address or text.
- TEST: Send a test e-mail with the specified server information to verify the delivery.

# 6.6 CONFIGURING RECORD

To set-up the various recording options, highlight RECORD and press ENTER.

#### 6.6.1 CONTINUOUS



You configure Continuous Record mode.

- SIZE [MV-7004H]: You can select what resolution of video will be recorded as follows;
  - NTSC: 960x480/960x240/480x240
  - PAL: 960x576/960x288/480x288
  - > ALL: Set the resolution for all channels
    - ✓ 25%: 480x240 for NTSC, 480x288 for PAL
    - ✓ 50%: 960x240 for NTSC, 960x288 for PAL
    - ✓ 100%: 960x480 for NTSC, 960x576 for PAL
- SIZE [MV-8004S]: You can select what resolution of video will be recorded as follows;
  - > 1080p Camera Input: 1920x1080 / 960x540 /480x270
  - > 720p Camera Input: 1280x720 / 640x360/320x180
  - > ALL: Set the resolution for all channels
    - ✓ The resolution setting value is represented with the ratio of the input resolution to t
      he recording resolution because there could be mixed connection with 720p camer
      a and 1080p camera inputs.
    - ✓ 25%: 480x270 for 1080p input, 320x180 for 720p input
    - ✓ 50%: 960x540 for 1080p input, 640x360 for 720p input
    - ✓ 100%: 1920x1080 for 1080p input, 1280x720 for 720p input
- FPS: NTSC: You can select recording frame rate as 0/1/2/4/5/8/15/30 at NSTS mode or 0/1/2/4/5/7/13/25 at PAL mode.
- QUALITY: You can select recording video quality as 5 levels like; Low / Standard / High / Highest / Super
- AUDIO: If you select "ON", audio data will be recorded.

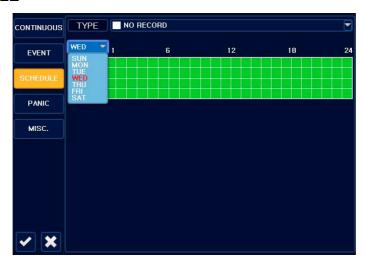
### **6.6.2 EVENT**



When event triggered, you can configure recording condition like follows;

- ♣ MOTION EVENT : You can configure recording condition when motion triggered.
- **♣** ETC EVENT : You can configure recording condition at Alarm / V-Loss occurred.
  - FPS: NTSC: You can configure frame rate as 0/1/2/4/5/8/15/30 at NTSC Mode or 0/1/2/4/5/7/13/25 at PAL mode.
  - QUALITY: You can configure video quality as 5 levels as Low / Standard / High / Highest / Super.
  - > Audio: If you select "ON", audio data will be recorded.
  - Recoding resolution for the event record mode follows the size in the CONTINUOUS record setting.

#### 6.6.3 SCHEDULE



You can configure schedule recording mode as Day / Week.

- Day or Week mode is set under the 'MISC' menu under RECORD setup page.
- ♣ DAY: You can configure the recording type by a hour and by a channel. This mode is for the demand that all days have the same recording schedule regardless of the day of the week.
- ♣ WEEK: In this mode, you can configure the recordign type by a hour, by a channel and by the day of the week. This mode is suitable for the user who want to configure the separate schedule according to the day of the week. Refer to the above picture.
- 4 TYPE: You can select recording mode out of total 8 modes. Refer to the below picure
  - No record.
  - Continuous record
  - Motion record.
  - Alarm record
  - Continuous & Motion Record
  - Continuous & Alarm Record
  - ➤ Motion & Alarm Record
  - Continuous & Motion & Alarm Record



You can configure schedule time table using left mouse click or Front key (press event key button and use arrow key for top/bottom/left right. And you can press the enter key twice at Front panel to select one block.

### 6.6.4 PANIC SETUP



During panic recording mode, the MV8004S will override all other recording settings and record continuously on all channels at the settings configured here.

- ♣ SIZE [MV-7004H]: You can select what resolution of video will be recorded as follows;
  - NTSC: 960x480/960x240/480x240
  - PAL: 960x576/960x288/480x288
  - > ALL: Set the resolution for all channels
    - ✓ 25%: 480x240 for NTSC, 480x288 for PAL
    - ✓ 50%: 960x240 for NTSC, 960x288 for PAL
    - √ 100%: 960x480 for NTSC, 960x576 for PAL
- SIZE [MV-8004S]: You can select what resolution of video will be recorded as follows;
  - > 1080p Camera Input: 1920x1080 / 960x540 /480x270
  - > 720p Camera Input: 1280x720 / 640x360/320x180
  - > ALL: Set the resolution for all channels
    - ✓ The resolution setting value is represented with the ratio of the input resolution to t he recording resolution because there could be mixed connection with 720p camer a and 1080p camera inputs.
    - ✓ 25%: 480x270 for 1080p input, 320x180 for 720p input
    - ✓ 50%: 960x540 for 1080p input, 640x360 for 720p input
    - ✓ 100%: 1920x1080 for 1080p input, 1280x720 for 720p input
- FPS: You can configure frame rate as 0/1/2/4/5/8/15/30 at NTSC Mode or 0/1/2/4/5/7/13/25 at PAL mode.
- QUALITY: You can configure video quality as total 5 levels like Low / Standard / High / Highest / Super.
- ♣ Audio: If you select Audio as "ON", audio data will be recorded.

### 6.6.5 MISC.



- SCHEDULE MODE: Either DAILY (one schedule will apply to every day of the week) or WEEKLY (each day of the week has its own schedule).
- ♣ PRE EVENT RECORDING TIME: When the MV8004S is not in continuous recording mode, this setting determines the amount of footage that is always recorded before an event occurs (motion detection, alarm input etc.)
- POST EVENT RECORDING TIME: You can configure how long the system keep event recording after event triggered.
- ♣ PANIC RECORDING: You can enable Panic recording or not.
- ♣ PANIC RECORDING TIME: When PANIC RECORDING is set to Enable it determines the amount of time. The MV8004S records in panic mode before reverting back to standard recording mode.
- Mirroring: You can enable mirroring recording mode or not.
- **MIRRORING TYPE** 
  - > ALL: Same data will be recorded to mirroring HDD same as current recording data.
  - > EVENT: Just event data will be recorded to mirroring HDD.
  - > SELECT CHANNEL FOR MIRRORING: You can check which channel will be recorded to mirroring HDD.

# 6.7 CONFIGURING EVENT/SENSOR

You can configure Event activation like Alarm Input / Alarm Output / Buzzer Out / E-Mail / PTZ Preset.

# **6.7.1 ALARM INPUT SETUP**



You can configure Alarm input .

- ♣ OPERATION : You can configure activation when Sensor is triggered.
  - DISABLE: When Sensor input is triggered, Event is not working.
  - > ENABLE : When Sensor input is triggered, Event is working.
- TYPE: If the operation is enabaled;
  - ➤ N/O : Keep Normal Open of Sensor's normal status
  - N/C : Keep Normal Close of Sensor's normal status .
- **TEXT**: If event is triggered after Sensor input, you can make a title of channel will be displayed.

### 6.7.2 ALARM OUTPUT SETUP



You can cofniture activation of Relay output.

- 4 ALARM OUT: You can select Relay for the operation to be configure
- ♣ OPERATION : You can configture output status of Relay.
  - DISABLE : Relay is not working
  - > ENABLE : Relay is working once event is triggered.
- ♣ MODE : You can configture activatoin of Relay output.
  - > TRANSPARENT : Keep Relay output until evet triggering stopped.
  - > LATCHED: Keep relay ouput for duration time from the event triggered lately.
- DURATION: If the alarm output mode is configured as Latched. You can configure duration time for relay output.
- 4 TYPE: Define the trasition of the signal of Alarm output
  - N/O(Active Low): When event triggered, the relay will go to 'Close' state from the 'Open'.
  - > N/C(Active High): When event triggered, the relay will go to 'Open' state from the 'Close'
- ♣ HDD EVENT : If you select "ON", when HDD related Event is triggered, relay ouput will be started.
- ALARM : When sensor input, relay output will be started.
- ♣ VIDEO LOSS: When video loss occurred, replay output will be started.
- MOTION: When motion triggered, replay output will be started.

### 6.7.3 BUZZER OUTPUT SETUP



You can configure Buzzer output when event triggered.

- ♣ OPERATION: You can configure the output status of Buzzer.
  - > DISABLE: Buzzer is not working when event is triggered.
  - > ENABLE : Buzzer is working when event triggered.
- ♣ HDD EVENT : If HDD related event is triggered, Buzzer output will be started.
- ♣ MODE : You can configure operation mode of Buzzer output.
  - > TRANSPARENT: Keep buzzer output until event operation is stopped.
  - > LATCHED: Keep buzzer output for the duration time from event is triggered lately.
- Latched mode.
- ALARM: When sensor input, buzzer output will be started.
- ♣ VIDEO LOSS: When video loss occurred, buzzer output will be started.
- ♣ MOTION : When motion triggered, buzzer output will be started.

### 6.7.4 E-MAIL SETUP



You can confiture E-mail notificatin when event triggered like follows;

- ♣ NOTIFICATION: If you select "ON", E-mail will be sent when event triggered.
- ♣ SETUP CHANGE : If you select "ON", E-mail will be sent when menu configuration is changed.
- 4 HDD EVENT: If you select "ON", E-mail will be sent when HDD related event is triggered.
- ♣ BOOT EVENT : If you select "ON", E-mail will be sent when DVR bootup .
- ♣ ALARM : E-mail will be sent, when sensor is triggered.
- ♣ VIDEO LOSS: Email will be sent, when video loss occurred.
- ♣ MOTION : Email will be sent, when motion triggered.
- FREQUENCY: You can configure E-Mail notification period.

### 6.7.5 PTZ PRESET SETUP



You can configure PTZ preset operation when event triggered.

- FTZ CAMERA: Select the PTZ camera for the following configuration to be applied.
- ♣ OPERATION: You can configure the operation of PTZ Preset, when event triggered.
- DISABLE : PTZ preset is not working
- ENABLE: PTZ preset is working.
- ♣ ALARM PRESET : You can configure Preset when Sensor is triggered.
- ♣ V-LOSS PRESET : You can configure Preset when Video loss is occurred.
- ♣ MOTION PRESET : You can configure Preset, when motion is triggered.

# 6.8 CONFIGURING DISK

You can configure DISK operation like Recording Time Limit / Overwrite / HDD Type / Format / HDD Configuration.



- RECORDING TIME LIMIT: You can configure the data from current time to configured time ( 12hr – 2 month).
- ♣ OVERWRITE : IF you select "ON", overwrite mode will be activated.
- HDD TYPE: You can select HDD when you try to format.
  - > RECORD: You select HDD of record to format at HDD configuration.
  - MIRRORING: You select HDD of mirroring to format at HDD configuration.
- FORMAT: You can format the HDDs.
- + HDD CONFIGURATION: You can view HDD's user configuration connected to DVR and S.M.A.R.T.
  - > RECORD: You can select HDD as record HDD.
  - MIRRORING: You can select HDD as mirroring HDD.
- S.M.A.R.T: You can view S.M.A.R.T information of HDD.



- GOOD: It shows current HDD condition is good.
- BAD : It shows current HDD condition is bad.

# 7. REMOTE

# 7.1WEB SERVER

MV-8004S prepares the web server internally. This server consists of two services. One is for the remote configuration of DVR setup and The other is for the client viewer based on the Active-X.

Using the remote configuration, you can configure all feature sets of DVR. And the live preview, search and PTZ control can be served by the 'WebViewer'.

The table below shows the recommended PC specification for the proper operation.

### [Minimum & Recommended Specification of PC]

|                   | Minimum                         | Recommended               |
|-------------------|---------------------------------|---------------------------|
| Operating System  | Windows XP                      | Windows 7                 |
| CPU               | Core2Duo @2.53GHz or Equivalent | Core i5 @3.3GHz or Higher |
| Memory            | 1 GB                            | 2 GB                      |
| Video Card Memory | 512MB                           | 512MB                     |
| HDD Capacity      | 50MB                            | 2GB                       |
| VGA Resolution    | 1280x1024x16                    | 1920x1080x32              |
| Direct-X          | DirectX 7.0                     | DirectX 9.0c              |
| Network           | Ethernet 10/100B-TX             |                           |

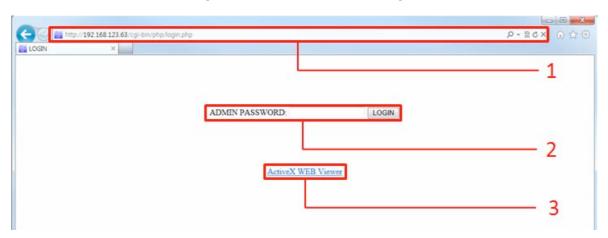
#### 7.1.1 CONNECT TO WEB SERVER

Enter the IP address of DVR into the ULR bar referring to the below picture.



- NOTE) You can know the IP address of DVR from the 'INFO' section under the OPERATION SETUP of DVR menu. If the local IP which starts with '192.168.xxx.xxx' is used in the DVR, you have to set the 'Port Forwarding' properly in your router. The port number to set can be get from 'DVR PORT' in the NETWORK SETUP. If your router supports the 'uPNP' feature, there is no need to set 'Port Forwarding' manually because the DVR supports the 'Auto Port Forwarding' function using the 'uPNP' protocol. (Some routers can make the compatibility issues to the uPNP protocol of DVR)
- NOTE) If the access to the web server can't be established after setting the 'Port Forwarding', you may need to check the firewall of router and your PC. The port used in the DVR should be allowed to access by the firewall.

### [The initial screen of Web Server]



- **★** 1: Enter the IP address of your DVR. If you don't use the default port number of HTTP, 80, you may add the port number following the IP address. Ex. http://192.168.123.63:80
- ♣ 2: Input the adminstrator's password beside of the 'ADMIN PASSWORD'. Only admistrator can log in for the DVR configuration. Clikcing the 'LOGIN' button will guide you to the DVR configuration pages.
- 4 3: ActiveX based Web Viewer: Clicking the link execute the 'WebViewer' or initiate the installation of ActiveX plugin.

### 7.1.2 WEB CONFIGURATION PAGE

In the web configuration page, you can set the DVR operations remotely.

### **Tested Web Browser List**

- Microsoft Internet Explorer○,R
- Mozilla Firefox○,R
- Google Chrome Browser<sup>O</sup>,R
- ◆ Opera Browser<sup>o</sup>,R
- ◆ Apple Safari<sup>O</sup>,R

### **Features**

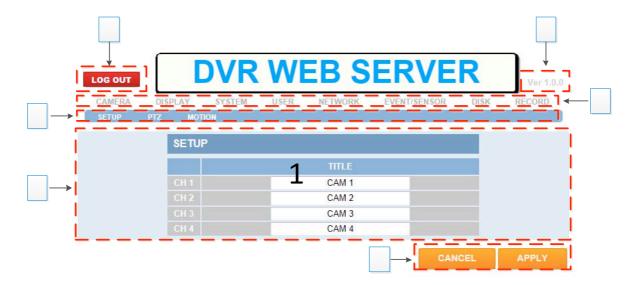
Configuring the DVR setup remotely

After giving the ADMIN's password and clicking 'LOGIN', you can move into the page where you can configure the setup menu of DVR.



- NOTE) Default Password for ADMIN: 1234
- NOTE) Only ADMIN account can access the menu configuration pages.
- NOTE) When no operation more than 5 minutes is, the configuration page will be logged out automatically.

# 7.1.2.1 Initial Page of Web Configuration



- 4 1: log out from the configuration page
- 4 2: version number of this web configuration
- ♣ 3: Top menu of DVR
- 4: Sub menu of DVR
- 5: Setting or Information section
- 6: Cancling or applying the modification
- CANCEL: more any modification and the modification is recovered to the previous setting
- APPLY: the modified setting is applied to DVR and saved
  - In order to apply or save, you should click the 'APPLY' button. Otherwise all the changes will be lost.

For the detail description of the DVR configuration, please refer the '<u>5.HOW TO CONFIGURE</u>' section of this manual. Clicking the following link will guide you to the proper section which explains each setup.

- **CAMERA**
- DISPLAY
- **♣** SYSTEM
- **USER**
- **NETWORK**
- **EVENT/SENSOR**
- **♣** DISK
- **RECORD** 
  - Search, Playback & Copy functions are not supported from the web server. To user these, please use the 'Web Viewer' instead.

# 7.1.3 WEB VIEWER (Active-X)

Thought the 'Web Viewer', you can see the live preview video, search and playback of recordings in the DVR and copy the recordings out from the DVR.

#### **Tested Web Browser**

- Miscrosoft Internet Explorer<sup>O</sup>,R
- ♣ Mozilla Firefox○,R
- Google Chrome Browswer<sup>o</sup>,R

#### **Features**

- This 'Web Viewer' is based on the ActiveX
- Monitoring the live preview videos from the DVR.
- Searching & Playback of the recordings in the DVR
- Copy the recording data in the DVR to the PC remotely
- PTZ camera control remotely

### 7.1.3.1 Installation and Execution

### [Microsoft IE]

Click the 'ActiveX WEB Viewer' initiate the installation of the 'Web Viewer' if not installed previously. If the 'Web Viewer' is installed already in your IE browser, click will execute this plug-in

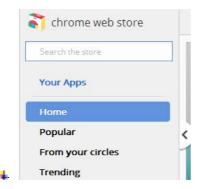
### ActiveX WEB Viewer

- NOTE) To install properly, your PC should be connected to the internet.
- NOTE) 'Web Viewer' is certificated with the name 'NEOXENTEC SYSTEMS CO,.LTD', who designs the application.
- NOTE) First execution of 'Web Viewer' will install the application first.
- NOTE) If new updated version of 'Web Viewer' is found, updating starts automatically before execution.

### [Google Chrome]

In order to execute the ActiveX plugin, you have to install the 'IE TAB' from Google web store referring the following steps.

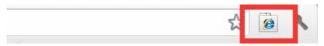
- Execute the Chrome browser
- ♣ Goto the https://chrome.google.com/webstore/category/home
- ♣ Enter the word 'IE TAB' into the 'Search the store' box and press enter.



'Searching' shows the results such as below.



Llick the 'ADD TO CHROME' and then you can see the IE symbol on the right side of URL Bar



There are two ways to execute the 'Web Viewer' from the Chrome.

- 1. Clike the ICON( ) on the right side of URL bar. It opens new URL bar to get the URL. Entering the required IP address of DVR will connect the web server.
- 2. Just entering the IP address of DVR into the URL bar of Chrome and press enter

# [Mozilla Firefox]

In order to execute the ActiveX plugin, you have to install the 'IE TAB' from the add-on page of Firefox referring the following steps

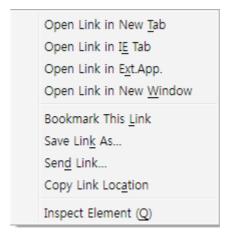
- Execute the FireFox browser
- Goto the <a href="https://addons.mozilla.org/en-US/firefox/addon/ie-tab">https://addons.mozilla.org/en-US/firefox/addon/ie-tab</a>. And then the following page will show the way to install the 'IE TAB'.



♣ Click the 'Add to Firefox' will enable supporting Active-X plugin.

Way to execute the 'Web Viewer' from the Firefox

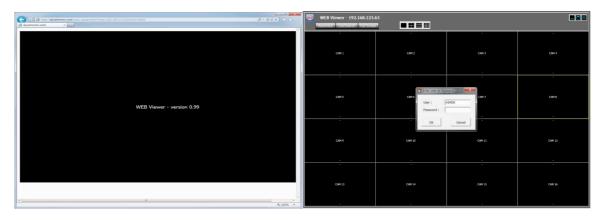
- ♣ Enter the IP of DVR into the URL bar of Firefox.
- Right-click the link 'AcitveX WEB Viewer' will show the pop-up menu such as below.



- ♣ Select the 'Open Link in IE TAB'. ActiveX
- First execution will install the ActiveX plug-in. And the application will be executed if installed already.

# 7.1.3.2 Initial Screen of Web Viewer

Executing the 'Web Viewer' opens the application separated from the web browser and show the login window such as below picture.



# 7.1.3.3 Log In





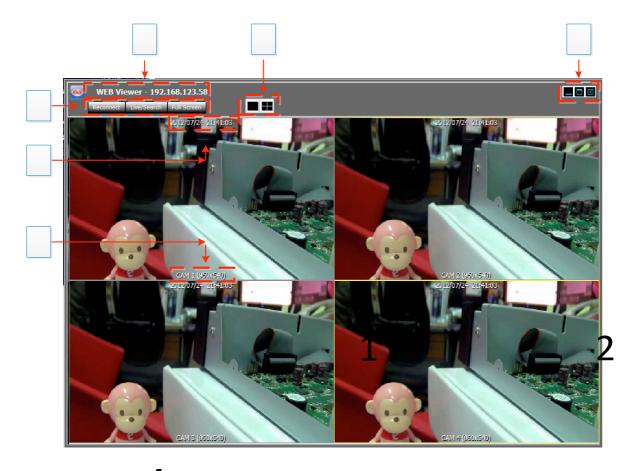
- The user authority and allowed functions, live preview, search & playback, PTZ control and etc., are controlled by the setting <u>USER AUTHORITY setting</u> of DVR setup
- USER ID and password is case-sensitive.

# 7.1.3.4 Live Preview

After login, the live preview screen will be shown such as below.

### **Features**

- ♣ User log-in/out feature (RECONNECT)
- Monitoring the live prewview
- Snapshot and save the preview video as JPEG
- 4 (Admin Only) Control the resolution and quality for transferred video stream directly



- The yellow rectangle around video shows the currently selected camera
- ♣ 1: IP of DVR connected remotely
- 4 2: display split mode selection
  - > Single camera view
  - > \_\_\_\_\_\_ : Quad split view

6

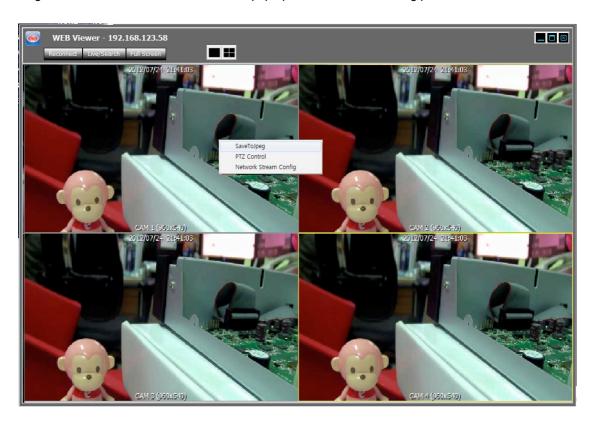
- ♣ 3: WEB Viewer Minimize/Maximize/Close
  - > III : Minimize the window

  - Exit the 'Web Viewer'
- ♣ 4: Reconnect/Live&Search/Full Screen
- Reconnect : Log out and Reconnect
- Live/Search : Switching between the live preview and the search & playback
- # Full Screen : Full screen video view. Press 'ESC' to return to the window
- ♣ 5: Date & Time of Camera transferred from the DVR
- ♣ 6 : Channel Title and the resolution of the transferred video
  - ➤ Resolution Steps for MV-7004H:
    - ✓ NTSC: 960x480 / 960x240 / 480x240
    - ✓ PAL: 960x576 / 960x288 / 480x288
    - ✓ Default Resolution: 960H: 480x240(NTSC)/480x288(PAL)
  - Resolution Steps for MV-8004S:
    - ✓ 720p Camera: 1280x720 / 1280x360 / 640x360 / 640x180 / 320x180
    - ✓ 1080p Camera: 1920x1080 / 1920x540 / 960x540 / 960x270 / 480x270
    - ✓ Default Resolution: 720p Camera: 640x360, 1080p Camera: 960x540

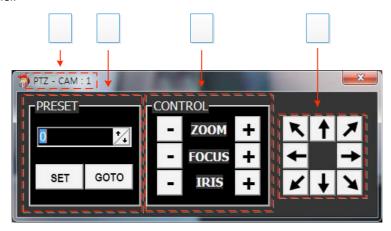
# 7.1.3.5 JPEG Snapshot/ PTZ control / Video Configuration /Live Audio

In the Web Viewer, you can save the video as JPEG file, control the PTZ of camera and hear the audio from the DVR. And especially, you can configure the transferred video directly from the viewer.

The right-click on the video window shows the pop-up menu such as following picture.

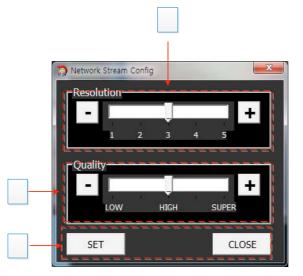


- SaveToJpeg : Save the current video of the selected channel with the yellow border into the PC as a JPEG file.
- \* PTZ Control : Open the PTZ control panel, which controls the PTZ camera of the selected channel.



- 4 1: Camera Channel number which is currently selected.
- **♣** 2: PRESET OPERATION OF PTZ
- **♣** 3: <u>ZOOM/FOCUS/IRIS CONTROL</u>
- **♣** 4: DIRECTION CONTROL (PAN & TILT)

Network Stream Config : Open the 'Network Stream Config' panel where you can choose the resolution and the quality for the transferred video. The changes will affect the all channels.



- 1: Resolution selection (5 levels)
  - ➤ MV-7004H
    - ✓ Level 1: NTSC : 240x120, PAL : 240x144
    - ✓ Level 2: NTSC: 480x120, PAL: 480x144
    - ✓ Level 3: NTSC: 480x240, PAL: 480x288
    - ✓ Level 4: NTSC: 960x240, PAL: 960x288
    - ✓ Level 5: NTSC: 960x480, PAL: 960x576
  - Default Value: 480x240(or480x288)
  - ➤ MV-8004S
    - ✓ Level 1: 720p : 320x180 / 1080p : 480x270
    - ✓ Level 2: 720p : 640x180 / 1080p : 960x270
    - ✓ Level 3: 720p : 640x360 / 1080p : 960x540
    - ✓ Level 4: 720p : 1280x360 / 1080p : 1920x540
    - ✓ Level 5: 720p : 1280x720 / 1080p : 1920x1080
  - Default Value: 640x360 for 720p, 960x540 for 1080p
- 4 2: Modify the quality of video (5 steps): LOW,NORAL,HIGH,BEST,SUPER
  - Default Quality: 'HIGH'

3

4 3: Apply of modification (SET) and close the panel

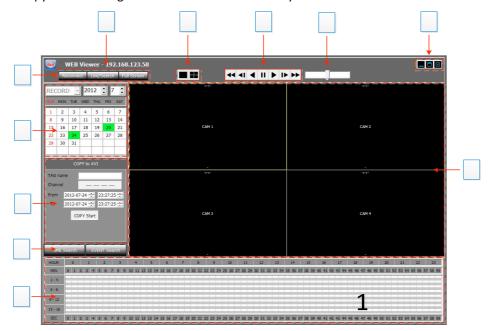
# 7.1.3.6 Search & Playback

Live/Search

Entering to the search & playback window or Returning to the live preview

#### **Features**

- ♣ User log-in/out feature (RECONNECT)
- Swiching between the live preview and the search & playback
- Search & Playback
- ♣ Copy the recordings in the DVR to the PC remotely

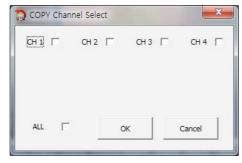


2

- 4 1: Show the IP address of DVR currently connected
- 4 2: Split mode selection.
  - : Single camera vie
  - > Quad split view
- ♣ 3: Playback speed control
  - : Reverse Fast 7
  - : Reverse Slow
  - : Reverse Normal Speed
  - > III : Pause
  - > Forward Normal Speed
  - > IForward Slow
  - : Forward Fast

- Steps for fast playback : x2, x4, x8, x16,x30, x60, x120
- Steps for slow playback: 1/2, 1/4, 1/8, 1/16, 1/30, 1/60, 1/120
- 4: Fast Playback Speed & Direction Control Bar
  - Mouse wheel up: faster in forward direction
  - Mouse wheel down: reversely faster
  - > Center click: normal speed playback
  - Click on the right half of bar: faster in forward direction
  - Click on the left half of bar: reversely faster
  - > 7 level speed control for each direction
- 5: View window control
  - > I : Minimize the window

  - Exit the 'Web Viewer'
- ♣ 6: Reconnect/Live&Search/Full Screen
  - Reconnect : Log out and Reconnect
  - : Switching between the live preview and the search & playback
  - Full Screen : Full screen video view. Press 'ESC' to return to the window
- 4 7: Calender Panel: show the selected date for searching. The green color indicates that the recording data exist. Click the date will tigger the searching for the selected day. The searching result is displayed on the time selection table (10).
- 8 : Copy the recorded video in the DVR to the PC
  - > TAG name: Folder name where the copied AVI file to be saved.
  - Channel: Choose the channel required to be copied



- From: The start time of the recording data to be copied
- To: The end time of the recording data to be copied
- Copy Start: executing the copy operation
- TAG name and Channel have to be defined to proceeding the copy.

- 4 9: Choose search type between 'EVENT' and 'TIME'. The time selection table tagged '10' in the above picutre is used for one of this two search type
  - TIME Search : select the search mode to 'Time Search'.



- > Yellow colored cell indicates the currently selected hour and minute.
- > Green colored cell means that there is the recording data by the continuous recording.
- Red colored cell means that there is the event recording data.
- Click or double-click on the cell in the minutes bar will start the playback from the selected time.



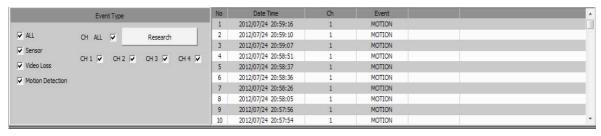
COPY Start Time
COPY End Time
Event Search

menu such as the left pictures.

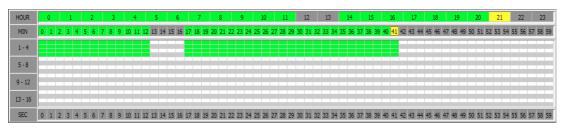
: Right click on the minute bar will show the pop-up

- : Taking the 'COPY START TIME' from the selected time cell and input it into the 'From' of COPY control panel.
- COPY End Time: Taking the 'COPY END TIME' from the selected time cell and input it into the 'To' of COPY control panel.
- > Event Search : Taking the time for 'EVENT SEARCH start time'.
- Selection the second by clicking on the 'second' bar will move the second of playback video to the selected second. This is only available during the playback on-going.
- Each cells in the time selection table indicates whether the recording data exists or not for that time and channel.

EVENT Search : Select the search mode to 'EVENT Search'.



- Event Type(Search Condition)
  - ✓ All: For all kinds of recording event
  - $\checkmark$  Sensor: sensor input event
  - √ Vidoe Loss: lost video event
- > Motion Detection: motion detection event
- > CH ALL: Searching for all channels
- > CH1/CH2/CH3/CH4: choosing the channel to be searched
- Research: execute the event search again
- 4 10: Time selection & recording indication table / Event search result window





- 4 11: display the playback video as a result of searching.
- 4 12: show the current playback mode, speed and direction.

# 7.2Android Viewer

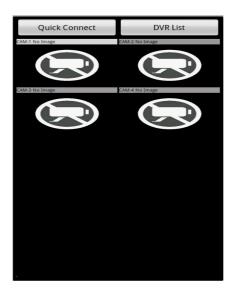
PocketViewer is the name of smart phone viewer for Android and IOS.

And you can also access to DVR system through 3G/4G phone or Wi-Fi connection.

#### Main feature

- Live View
- ♣ Full-Screen
- Multi Screen Display (4 channel split)
- FTZ Control (Pan-Tilt, Zoom, Preset configure and Move)
- Live Zoom & Web Menu connection of DVR will be supported through upgraded version.

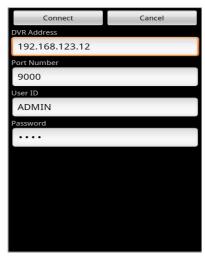
### 7.2.1 How to use



If you start PocketViewer, you will see the above screen.

- **Quick Connect**: If don't want to save the DVR info to mobile phone, just for one time connection usage.
- **DVR List**: If you want to save the DVR info to mobile phone and control the list of DVR.

### 7.2.1.1 Quick Connect



If you press Quick Connect button, the above image will be displayed.

- DVR Address : You need to input IP Address
- Port Number : You need to input DVR port number that you configured at Network menu at DVR.
- User ID: You need to input ID that you configured in DVR. (default password of Admin is 1234)
- Password : You need to input password ( default password of Admin is 1234)
- Lonnect: You can connect to DVR to view the video pressing Connect button.
- Cancel : Close Quick Connect.

### 7.2.1.2 DVR LIST

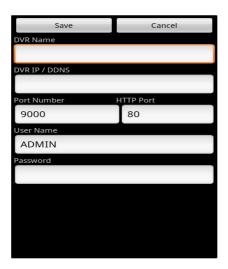
If you press DVR list button, following window will be displayed.



- New : You can create new DVR will be added to List.
- Edit: You can edit list currently stored.
- Delete: You can delete list currently stored.
- Close: You can close DVR list menu
- Connect : You can connect one of List already stored.
- ♣ Menu : You can connect to Web menu of DVR ( it will be supported in next firmware) after selection one of DVR in the List.

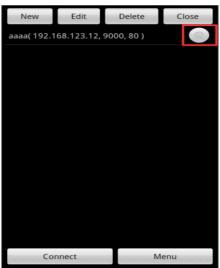
### 7.2.1.3 How to add DVR to the List

If you press New button, following window will be displayed.



- ♣ DVR Name : You can name newly added DVR to the List .
- ♣ DVR IP/DDNS: You can input IP address and DDNS info of DVR.
- Port Number : You can input DVR port number.
- ♣ HTTP Port : You can input HTTP port info of DVR that you configured at DVR network menu.
  - Note) this menu is for connection with Web Menu of DVR. Which will be supported in upgraded version
- ♣ User ID : You can input ID that is configured at DVR menu.
- 4 Password: You can input password that is configured at DVR menu.
- ♣ Save : You can store the info that you input pressing Save button.
- Cancel : Close adding List

### 7.2.1.4 How to connect



You can select one of list to make a connection to DVR that you what to view.

# 7.3 DDNS SERVER

You can get Domain Name Service through DDNS server.

### 7.3.1 HOW TO REGISTER

You need to input <a href="http://dyhamicmv.com">http://dyhamicmv.com</a> at URL in Web Brower.

You can view following image from DDNS server.



- **ANDROID VIEWER:** You can download Android Viewer ( iPocketViewer) . Android Viewer : Android Viewer
- Language DDNS SERVER: If you press DDNS server button, you will be moved to DDNS server page.



- LOGIN ID: Input USER ID.
- ♣ PASSWORD : Input Password.
- Logon: Press Log-in button to log-in
- Register: You can create user account.

# 7.3.2 REGISTER

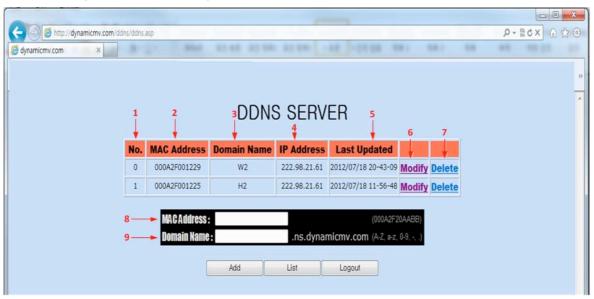
You can create user account by using register menu.



- LOGIN ID : Create ID.
- ♣ PASSWORD : Create Password..
- CONFIRM PASSWORD: Input password again to confirm the password.

# 7.3.3 Input DVR information.

You need to register domain name to get the service and input MAC address into DDNS server.



- 4 1: List number of registered DVR
- 2 : Mac address of registered DVR
- 3 : Domain name of registered DVR.
- 4 : IP address of registered DVR.
- 5: latest time that DVR sent the info to DDNS server.
- ♣ 6 : Update of Last Update
- 4 7: Delete of Domain name registered in DDNS server.
- 4 8: Input Mac Address of DVR that you want to register newly into DDNS server.
- 4 9: Input Domain name of DVR that you want to register newly into DDNS server.
- The Domain name type is "user.ns.dynamicmv.com".
- ♣ ADD: You can register DVR to the DDNS server pressing ADD button.
- LIST: The DVR list registered will be displayed.
- LOGOUT: User can log out
  - Note) It will take around 10 to 15 minutes to confirm the registration at the Server.

# 7.4 DVR MANAGER

DVR MANAGER is a 'Remote Client DVR Viewer' which can provide the functions such as 'Monitoring the live video', 'Search & Playback for the Recorded Video in DVR' and 'Download the Recorded Video in DVR(Remote COPY).

The following table shows the PC requirement for this application S/W.

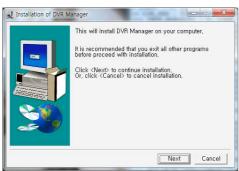
|                   | Minimum                         | Recommended               |
|-------------------|---------------------------------|---------------------------|
| Operating System  | Windows XP                      | Windows 7                 |
| CPU               | Core2Duo @2.53GHz or Equivalent | Core i5 @3.3GHz or Higher |
| Memory            | 1 GB                            | 2 GB                      |
| Video Card Memory | 512MB                           | 512MB                     |
| HDD Capacity      | 50MB                            | 2GB                       |
| VGA Resolution    | 1280x1024x16                    | 1920x1080x32              |
| Direct-X          | DirectX 7.0                     | DirectX 9.0c              |
| Network           | Ethernet 10/100B-TX             |                           |

### 7.4.1 INSTALLATION

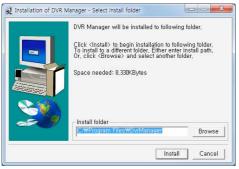
You can install the 'DVR Manager' using the 'setup' program which is provided in the bundle CD. Executing the 'DvrManager' setup.exe' in the DVR Manager folder will guide you to install this.



: Setup program of DvrManager



: Introduction of Setup



: Specify the folder location for installation.



: Complete Message Window

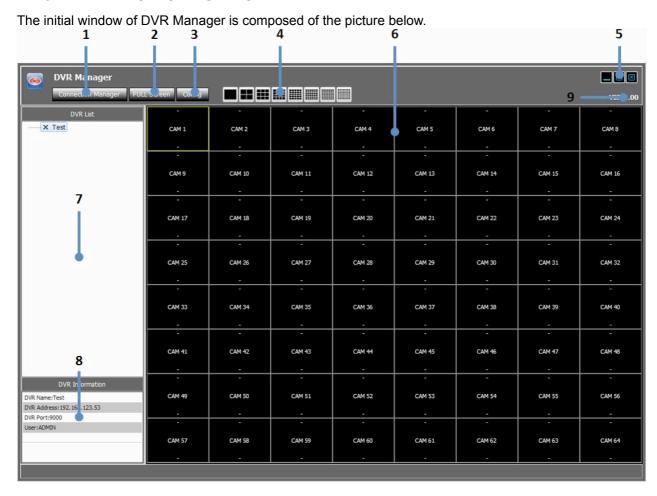
# 7.4.2 EXECUTION

The shortcut of 'DvrManager' is created after the successful installation. Clicking this icon executes the DvrManager.



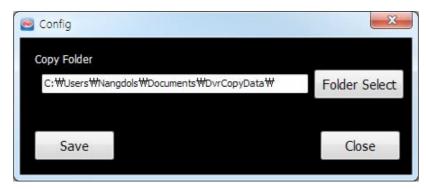
: Shortcut and icon of DVR Manager

# 7.4.3 LIVE VIDEO MONITORING



- 4 1: CONNECTION MANAGER: for registering or deleting the DVR to/from the DVR List.
- ♣ 2 :FULL SCREEN : Fill and fit only the video windows into the PC monitor.

♣ 3 :CONFIG :



- FOLDER SELECT: Choose or make the folder for the data which is copied out from the DVR remotely.
- > SAVE: Apply and save the current modification.
- CLOSE: exit the 'Config' pop-up.
- 4 : SPLIT MODE SELECTION: choose the number of cameras which will be shown in the live preview window.
  - 1/4/9/16/25/36/49/64
- ♣ 5 : Minimize/Maximize/Close DVR Manager
  - : Minimize the window

  - Exit the 'DVR Manager
- 4 6: Live View Window: show the live preview video of the connected DVR.
- **7**: DVR List Window: list the registered DVRs and indicate the connection status. When the DVR is linked, the cameras connected on that DVR are listed under the DVR.
- ♣ 8 : DVR Information : Show some information of DVR selected.
- 4 9: Verion: the version number of DVR Manager

### 7.4.4 CONNECTION MANAGER

This provides the way to register the DVRs into the DVR list, remove the DVR from the DVR list and editing the DVR connection information.

DVR Name :

DVR Name :

DVR Address :

DVR Port : 9000

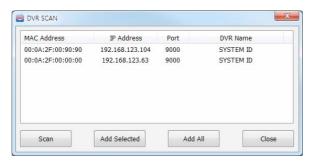
User : ADMIN

Password :

DVR SCAN

New Delete Save Close

- DVR Name: The name which you give to the DVR which has the following connection information.
- ♣ DVR Address : specify the IP address of the DVR
- ♣ DVR Port : the port number for DVR connection. The value should be same as the one specifed port number of your DVR.
- USER: user ID to be used in the login
- ♣ PASSWORD : password for the selected user.
  - User name and password is case-sensitive.
- ♣ DVR SCAN: scan the local network and show the detected DVRs in the list.



- MAC Address :show the MAC address of DVR resulted from scanning
- > IP Address: show the IP address of DVR resulted from scanning.
- PORT: show the PORT number of DVR which has the above MAC and IP address.
- DVR Name: show the name of DVR which has the above MAC and IP address. This is named as a value of 'SYSTEM NAME' under the 'MANAGEMENT' page of 'SYSTEM' menu.
- Re-scan: execute scanning the LAN again.
- Add: register the selected DVR into the DVR list of CONNECTION MANAGER.
- Add All: register all the scanned DVR into the DVR list of CONNECTION MANAGER.
- Close: Close the DVR SCAN window.
- Add: add new DVR into the DVR list.
- Little Edit: edit the connection information of the selected DVR.
- Remove : remove the selected DVR from the DVR list.
- Close: close the CONNECTION MANANGER

# 7.4.5 LIVE VIDEO WINDOW

The transferred live camera video are monitored in this window,

### Features of LIVE VIDEO WINDOW

- Montioring live camera video
- Swap the position of two cameras
- Snapshot and save it into the PC as JPEG file.
- ♣ PAN/TILT Control remotely
- ♣ Configure directly the quality and resolution for the transferred video.(ADMIN account only)
- Live audio from DVR
- ♣ Digital Zoom In

# 7.4.5.1 Monitoring live video stream

The real-time transferred live videos from the multiple DVRs are displayed in the 'LIVE VIDEO WINDOW'. You can configure the number of camera to be shown by the 'SPLIT MODE SELECTION' button.

• Double click change the split mode to the single channel full scale view and one more double click from the single channel view recalls the previous split mode.



# 7.4.5.2 Swap Camera Position

You can swap the display location of the selected two cameras by drag and drop.



• The swapped camera position will go back to the original location in case that the DVR manager restarts or the connection is re-established.

# 7.4.5.3 Digital Zoom on the Live View

Area selection by mouse dragging on the desired channel will activate the digital zoom for the specified area. And any clicking turns off the digital zoom.



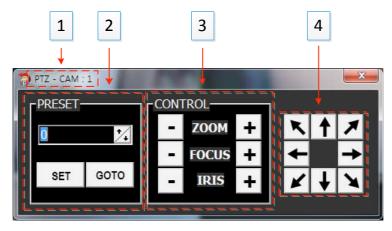
# 7.4.5.4 JPEG Snapshot/ PTZ control / Video Configuration /Live Audio

you can save the video as JPEG file, control the PTZ of camera and hear the audio from the DVR. And especially, you can configure the transferred video directly from the viewer.

The right-click on the video window shows the pop-up menu such as following picture.

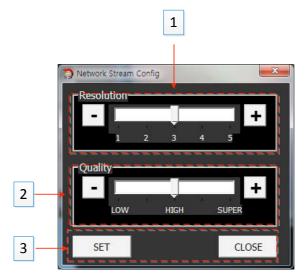


- SaveToJpeg : Save the current video of the selected channel with the yellow border into the PC as a JPEG file.
- \* PTZ Control : Open the PTZ control panel, which controls the PTZ camera of the selected channel.



- 4 1: Camera Channel number which is currently selected.
- **2**: PRESET OPERATION OF PTZ
- **♣** 3: ZOOM/FOCUS/IRIS CONTROL
- **♣** 4: DIRECTION CONTROL (PAN & TILT)

Network Stream Config : Open the 'Network Stream Config' panel where you can choose the resolution and the quality for the transferred video. The changes will affect the all channels.

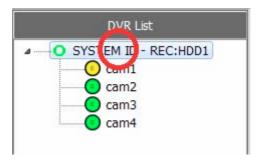


- 4 1: Resolution selection (5 levels)
  - ➤ MV-7004H
    - ✓ Level 1: NTSC : 240x120, PAL : 240x144
    - ✓ Level 2: NTSC: 480x120, PAL: 480x144
    - ✓ Level 3: NTSC: 480x240, PAL: 480x288
    - ✓ Level 4: NTSC: 960x240, PAL: 960x288
    - ✓ Level 5: NTSC: 960x480, PAL: 960x576
  - Default Value: 480x240(or480x288)
  - ➤ MV-8004S
    - ✓ Level 1: 720p : 320x180 / 1080p : 480x270
    - ✓ Level 2: 720p : 640x180 / 1080p : 960x270
    - ✓ Level 3: 720p : 640x360 / 1080p : 960x540
    - ✓ Level 4: 720p : 1280x360 / 1080p : 1920x540
    - ✓ Level 5: 720p : 1280x720 / 1080p : 1920x1080
  - Default Value: 640x360 for 720p, 960x540 for 1080p
- 4 2: Modify the quality of video (5 steps): LOW,NORAL,HIGH,BEST,SUPER
  - Default Quality: 'HIGH'
- ♣ 3: Apply of modification (SET) and close the panel

라이브 오디오(Z) : You can hear the audio from the selected camera..

### 7.4.5.5 DVR List

The 'DVR List' shows the DVRs registered using the 'CONNECTION MANAGER'. On the DVR List panel, you can connect/disconnect the DVR, execute the Player for the remote searching and playback, and see the status information of DVR.



SYSTEM ID – REC:HDD1: [The name of DVR]:[HDD number], HDD number means the HDD index currently be accessed for recording.



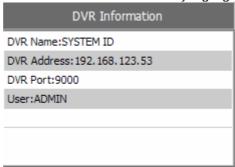
- : Show the recording type or status..
- Licking the DVR name in the DVR list pops up the menu to connect/disconnect DVR or execute the Player for search & playback such as below picture.



- CONNECT: Connect the DVR selected
- > DISCONNECT: Dis-connect the DVR Manager from the DVR
- RUN PLAYER: Execute the Player for the remote search & playback.

### 7.4.5.6 DVR Information

This panel shows some information of DVR which is currently highlighted from the DVR List.



# **7.4.6 PLAYER**

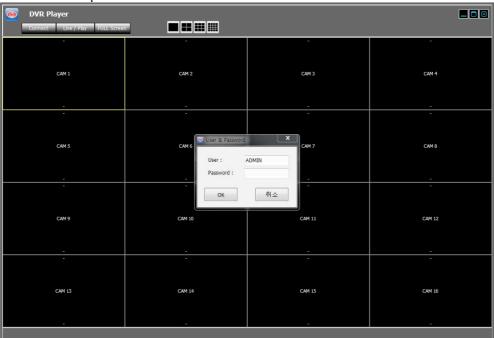
The Player support the features such as followings.

# **Features of Player**

- Live video monitoring for the connected DVR
- Remote search and playback for the connected DVR
- Download the recorded data from the DVR(remote copy)
- Control a PAN/TILT camera movement

# 7.4.6.1 Initial Screen

Executing the 'Player' opens the application separated from the web browser and show the login window such as below picture.



# 7.4.6.2 Log In



User:

Enter the USER name of DVR registered in the DVR

Enter the password for the selected user.

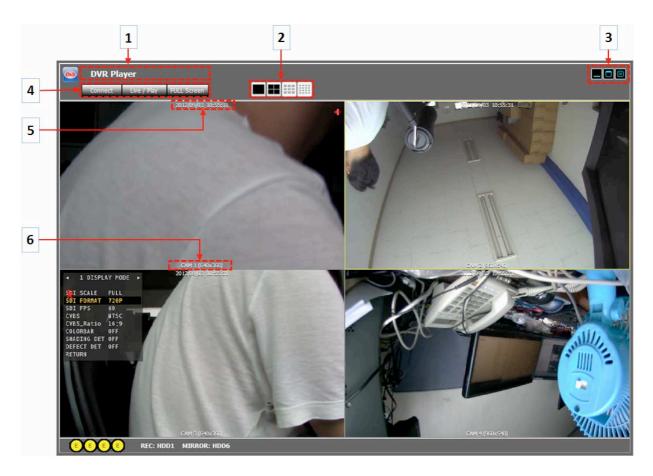
- The user authority and allowed functions, live preview, search & playback, PTZ control and etc., are controlled by the setting <u>USER AUTHORITY setting</u> of DVR setup
- USER ID and password is case-sensitive.

# 7.4.6.3 Live Preview

After login, the live preview screen will be shown such as below.

### **Features**

- ♣ User log-in/out feature (RECONNECT)
- Monitoring the live prewview
- Snapshot and save the preview video as JPEG
- 4 (Admin Only) Control the resolution and quality for transferred video stream directly



- The yellow rectangle around video shows the currently selected camera
- ♣ 1: IP of DVR connected remotely
- 4 2: display split mode selection
  - : Single camera view
  - : Quad split view
- 3: WEB Viewer Minimize/Maximize/Close
  - > I : Minimize the window

  - Exit the 'Web Viewer'

- 4: Reconnect/Live&Search/Full Screen
- Reconnect : Log out and Reconnect
- Live/Search : Switching between the live preview and the search & playback
- : Full Screen video view. Press 'ESC' to return to the window
- ♣ 5: Date & Time of Camera transferred from the DVR
- ♣ 6 : Channel Title and the resolution of the transferred video
  - Resolution Steps for MV-7004H:
    - ✓ NTSC: 960x480 / 960x240 / 480x240
    - ✓ PAL: 960x576 / 960x288 / 480x288
    - ✓ Default Resolution: 960H: 480x240(NTSC)/480x288(PAL)
  - ➤ Resolution Steps for MV-8004S:
    - ✓ 720p Camera: 1280x720 / 1280x360 / 640x360 / 640x180 / 320x180
    - $\checkmark$  1080p Camera : 1920x1080 / 1920x540 / 960x540 / 960x270 / 480x270
    - ✓ Default Resolution: 720p Camera: 640x360, 1080p Camera: 960x540
  - For the detail about the JPEG Snapshot/PTZ Control/Video Configuration, refer to the same feature of Web Viewer.

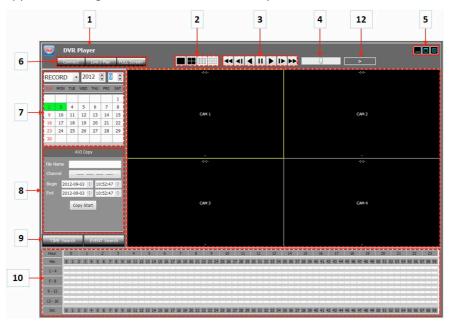
# 7.4.6.4 Search & Playback



Entering to the search & playback window or Returning to the live preview

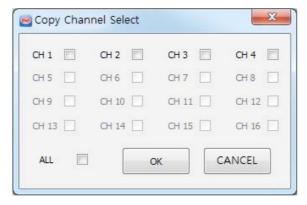
### **Features**

- ♣ User log-in/out feature (RECONNECT)
- ♣ Swiching between the live preview and the search & playback
- Search & Playback
- Copy the recordings in the DVR to the PC remotely



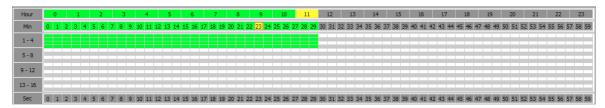
- 4 1: Application title
- 2: Split mode selection.
  - : Single camera view
- ♣ 3: Playback speed control
  - : Reverse Fast
  - : Reverse Slow
  - : Reverse Normal Speed
  - > III : Pause
  - > Forward Normal Speed
  - : Forward Slow
  - : Forward Fast
  - Steps for fast playback : x2, x4, x8, x16,x30, x60, x120
  - Steps for slow playback: 1/2, 1/4, 1/8, 1/16, 1/30, 1/60, 1/120

- 4: Fast Playback Speed & Direction Control Bar
  - Mouse wheel up: faster in forward direction
  - Mouse wheel down: reversely faster
  - > Center click: normal speed playback
  - > Click on the right half of bar: faster in forward direction
  - Click on the left half of bar: reversely faster
  - > 7 level speed control for each direction
- ♣ 5: View window control
  - > I : Minimize the window
  - > !!! : Maximize the window
  - Exit the 'Web Viewer'
- ♣ 6: Reconnect/Live&Search/Full Screen
  - Reconnect : Log out and Reconnect
  - : Switching between the live preview and the search & playback
  - Full Screen : Full screen video view. Press 'ESC' to return to the window
- ♣ 7: Calender Panel: show the selected date for searching. The green color indicates that the recording data exist. Click the date will tigger the searching for the selected day. The searching result is displayed on the time selection table (10).
- 4 8: Copy the recorded video in the DVR to the PC
  - > TAG name: Folder name where the copied AVI file to be saved.
  - Channel: Choose the channel required to be copied

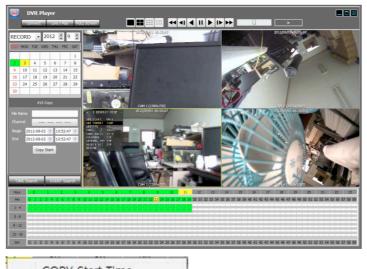


- From: The start time of the recording data to be copied
- > To: The end time of the recording data to be copied
- Copy Start: executing the copy operation
- TAG name and Channel have to be defined to proceeding the copy.

- 4 9: Choose search type between 'EVENT' and 'TIME'. The time selection table tagged '10' in the above picutre is used for one of this two search type
  - TIME Search: select the search mode to 'Time Search'.



- Yellow colored cell indicates the currently selected hour and minute.
- > Green colored cell means that there is the recording data by the continuous recording.
- Red colored cell means that there is the event recording data.
- Click or double-click on the cell in the minutes bar will start the playback from the selected time.



COPY Start Time
COPY End Time
Event Search

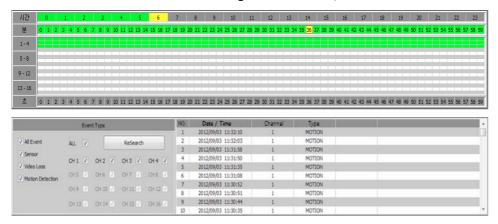
menu such as the left pictures.

- : Right click on the minute bar will show the pop-up
- : Taking the 'COPY START TIME' from the selected time cell and input it into the 'From' of COPY control panel.
- COPY End Time: Taking the 'COPY END TIME' from the selected time cell and input it into the 'To' of COPY control panel.
- Event Search : Taking the time for 'EVENT SEARCH start time'.
- Selection the second by clicking on the 'second' bar will move the second of playback video to the selected second. This is only available during the playback on-going.
- Each cells in the time selection table indicates whether the recording data exists or not for that time and channel.

EVENT Search : Select the search mode to 'EVENT Search'.



- Event Type(Search Condition)
  - ✓ All: For all kinds of recording event
  - $\checkmark$  Sensor: sensor input event
  - √ Video Loss: lost video event
- > Motion Detection : motion detection event
- > CH ALL: Searching for all channels
- CH1/CH2/CH3/CH4: choosing the channel to be searched
- > Research: execute the event search again
- 4 10: Time selection & recording indication table / Event search result window



- 4 11: display the playback video as a result of searching.
- 4 12: show the current playback mode, speed and direction.

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