

# DIGITAL VIDEO SURVEILLANCE RECORDER

REAL TIME, H.264

INSTRUCTION MANUAL

English Version 5.0



DHU600 SERIES

**DIGIMERGE** | Right For Business™

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Thank you for purchasing this product. Digimerge is committed to providing our customers with a high quality, reliable security solution.

This manual refers to the following model(s):

- DHU600 Series (4/8/16 channel configurations)

For more information on this product, firmware updates, and accessory products, please visit us at:

[www.digimerge.com](http://www.digimerge.com)



## CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products ' enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



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

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**

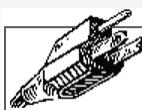
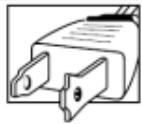
**CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT.**

# Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacturing process of your video product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to assure your enjoyment and proper use of the video product and accessory equipment. Please read them carefully before operating and using your video product.

## Installation

- Read and Follow Instructions** - All the safety and operating instructions should be read before the video product is operated. Follow all operating instructions.
- Retain Instructions** - The safety and operating instructions should be retained for future reference.
- Heed Warnings** - Comply with all warnings on the video product and in the operating instructions.
- Polarization** - Do not defeat the safety purpose of the polarized or grounding-type plug.  
A polarized plug has two blades with one wider than the other.  
A grounding type plug has two blades and a third grounding prong.  
The wide blade or the third prong are provided for your safety.  
If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Power Sources** - This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your location, consult your video dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.
- Overloading** - Do not overload wall outlets or extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.
- Power Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the video product.
- Ventilation** - Slots and openings in the case are provided for ventilation to ensure reliable operation of the video product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video equipment on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the video product manufacturer's instructions have been followed.
- Attachments** - Do not use attachments unless recommended by the video product manufacturer as they may cause a hazard.
- Camera Extension Cables** - Check the rating of your extension cable(s) to verify compliance with your local authority regulations prior to installation.
- Water and Moisture** - Do not use this video product near water. For example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, near a swimming pool and the like.  
*Caution:* Maintain electrical safety. Powerline operated equipment or accessories connected to this unit should bear the UL listing mark of CSA certification mark on the accessory itself and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.
- Accessories** - Do not place this video equipment on an unstable cart, stand, tripod, or table. The video equipment may fall, causing serious damage to the video product. Use this video product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the video product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.



# Service

13. **Servicing** - Do not attempt to service this video equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
14. **Conditions Requiring Service** - Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - When the power supply cord or plug is damaged.
  - If liquid has been spilled or objects have fallen into the video product.
  - If the video product has been exposed to rain or water.
  - If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
  - If the video product has been dropped or the cabinet has been damaged.
  - When the video product exhibits a distinct change in performance. This indicates a need for service.
15. **Replacement Parts** - When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. Use of replacements specified by the video product manufacturer can prevent fire, electric shock or other hazards.
16. **Safety Check** - Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the video product is in safe operating condition.
17. **Wall or Ceiling Mounting** - The cameras provided with this system should be mounted to a wall or ceiling only as instructed in this guide, using the provided mounting brackets.
18. **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

# Use

19. **Cleaning** - Unplug the video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
20. **Product and Cart Combination** - Video and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the video product and car combination to overturn.
21. **Object and Liquid Entry** - Never push objects for any kind into this video product through openings as they may touch dangerous voltage points or "short-out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.
22. **Lightning** - For added protection for this video product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

## General Precautions

1. All warnings and instructions in this manual should be followed.
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water dampened cloth for cleaning.
3. Do not use this unit in humid or wet places.
4. Keep enough space around the unit for ventilation. Slots and openings in the storage cabinet should not be blocked.
5. During lightning storms, or when the unit is not used for a long time, disconnect the power supply, antenna, and cables to protect the unit from electrical surge.

## FCC CLASS A NOTICE

### NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

This equipment has been certified and found to comply with the limits regulated by FCC, EMC, and LVD. Therefore, it is designated to provide reasonable protection against interference and will not cause interference with other appliance usage.

However, it is imperative that the user follows the guidelines in this manual to avoid improper usage which may result in damage to the unit, electrical shock and fire hazard injury.

In order to improve the feature functions and quality of this product, the specifications are subject to change without notice from time to time.

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## Features



\*16-channel model shown

- Compression for analog camera: H.264
- Mobile Viewing support
- Pentaplex operation performance: (Live/Record/Playback/Archive/Network)
- Independent resolution, FPS, quality and audio setting per channel
- Powerful search mode (calendar, time line, event, and multi-hour search)
- Quick & easy playback function (Forward & Reverse, Max. 64x)
- Two way audio communications supported
- Various archiving devices supported (CD/DVD-RW, USB device, Network, FTP)
- E-mail notification when an alarm is triggered
- Supports up to 2 SATA HDDs (Max 4TB)

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# GETTING STARTED

The system comes with the following components:



DIGITAL VIDEO RECORDER



REMOTE CONTROL



DVI TO VGA ADAPTER



POWER CABLE  
AND POWER ADAPTER



MOUNTING KIT



QUICK START GUIDE,  
MANUAL, (ELECTRONIC MANUAL CD)

HARD DRIVE SIZE, NUMBER OF CHANNELS, AND CAMERA CONFIGURATION MAY VARY BY MODEL. PLEASE REFER TO YOUR PACKAGE FOR SPECIFIC CONTENT DETAILS.  
CHECK YOUR PACKAGE TO CONFIRM THAT YOU HAVE RECEIVED THE COMPLETE SYSTEM, INCLUDING ALL COMPONENTS SHOWN ABOVE.

# BASIC SETUP

## 1. CONNECT THE CAMERAS

- Connect BNC cameras to the BNC IN ports on the rear panel.

## 2. CONNECT A MONITOR

- Connect up to three monitors to the system using the DVI port, Monitor, or Spot Out port (see figure 1.1).

**NOTE:** VGA output requires a DVI to VGA adapter (not included).

## 3. CONNECT THE ETHERNET CABLE

- Connect an Ethernet cable to the Network port (LAN) on the rear panel of system (see figure 1.2); connect the other end of the Ethernet cable to an empty LAN port on your router or switch (not included).

## 4. CONNECT THE POWER CABLE

- Connect the power cable to the **DC 12V** port on the rear panel of the system; connect the power adapter to an outlet, power strip, or surge protector.

### OPTIONAL: Mount the system to a rack

- Use the included mounting kit to mount the system to a rack.



Figure 1.0 Connect BNC cameras to the system (\*16-channel shown).

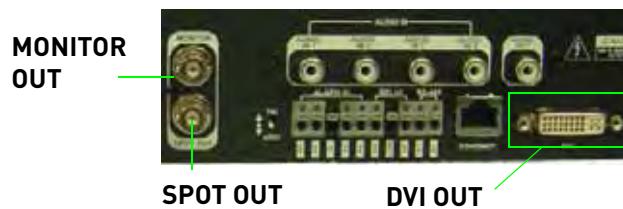


Figure 1.1 Connect to a DVI/VGA/CCTV monitor, or a TV. VGA monitors require a DVI to VGA converter (not included).



Figure 1.2 Connect an RJ45 network cable into the ETHERNET port.



Figure 1.3 Connect the power cable.

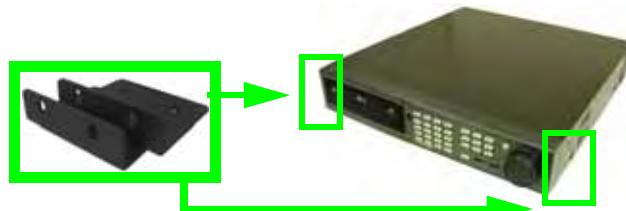


Figure 1.4 OPTIONAL—Attach mounting kit for rack mounting

# FRONT PANEL

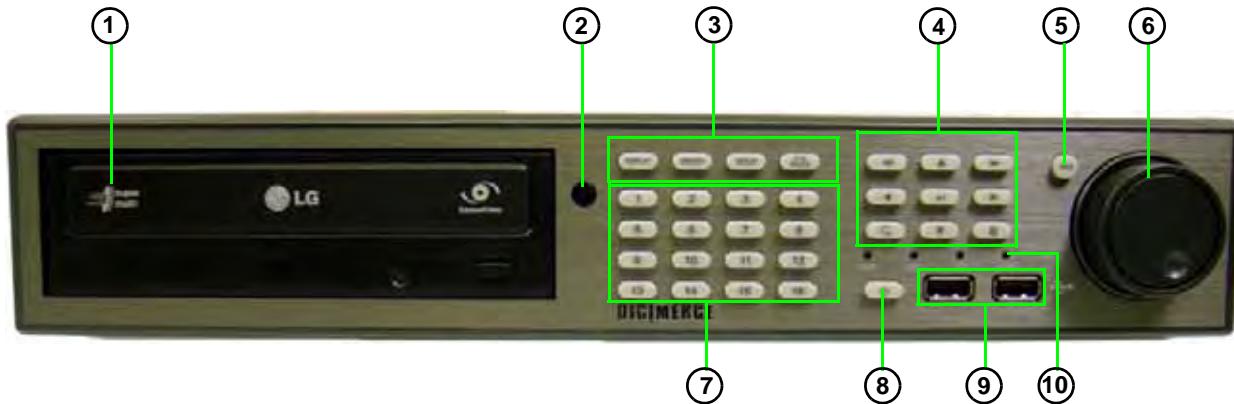


Figure 2.0 Front panel (16-channel model shown; optical drive brand may not be as shown.)

1. **Optical Drive:** DVD-RW drive for data backup; drive can be replaced with a hard drive if desired (not included; hard drive bay required)

**NOTE:** DHU600B models do not include an optical drive.

2. **IR Sensor:** Infrared (IR) sensor for the remote control.

3. **Quick Menu Buttons:**

- **DISPLAY:** Opens the display menu to choose between display configurations
- **SEARCH:** Open the Search menu
- **SETUP:** Open the Setup menu—select Main Menu (System Setup) or Record Menu (Record Setup)
- **PTZ/Focus:** Open the PTZ menu\*

**NOTE:** Press each button twice: the first press will open the Status Bar; the second press will open the selected menu.

**NOTE:** By default, login is required when opening system menus. However, you can choose to disable this password requirement. For details, see "System Management" on page 39.

\*PTZ cameras are not included with the system.

## Front Panel (cont'd.)

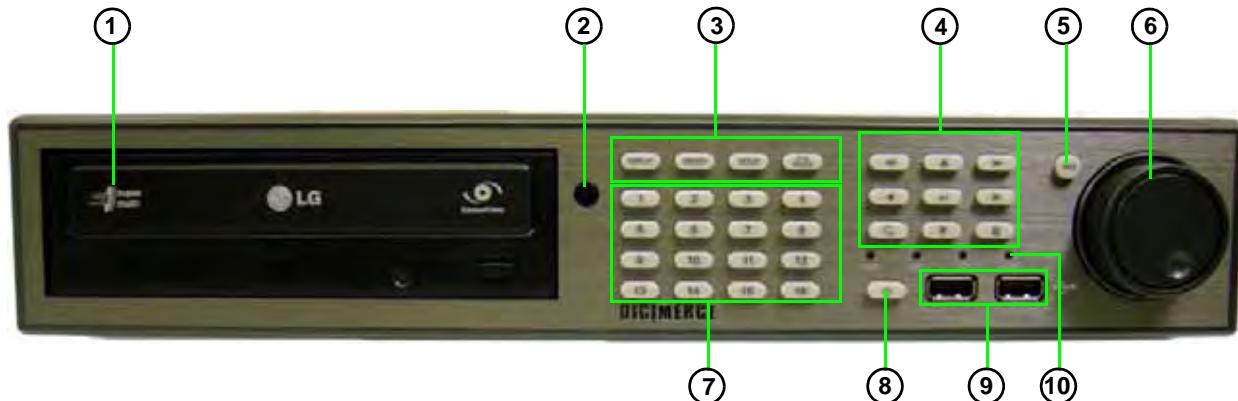


Figure 2.01 Front panel (16-channel model shown)

### 4. Playback Buttons:

- **◀◀** : Increase reverse playback speed -1X, -2X, -4X, -8X, -16X, -32X, -64X
- **◀** : Reverse playback
- **II** : Pause/play
- **▶** : Forward playback
- **▶▶** : Increase forward playback speed 1X, 2X, 4X, 8X, 16X, 32X, 64X
- **▲** : Menus: Move cursor up; PTZ: Tilt up
- **▼** : Menus: Move cursor down; PTZ: Tilt down
- **◀**: Menus: Move cursor left; PTZ: Pan left
- **▶**: Menus: Move cursor right; PTZ: Pan right
- **◀◀** : Enter/confirm menu selections / **▶▶** Exit menu selections

5. **HOLD button:** Press to hold the position of the Jog/Shuttle Wheel during playback (i.e. turn the Shuttle Wheel to increase/decrease playback speed, and then press the HOLD button to maintain the selected speed).

6. **Jog Ring/Shuttle Wheel:** Use the Jog Ring/Shuttle Wheel during playback and PTZ control:

- **Playback:** Turn the Shuttle Wheel clockwise to increase playback speed 1X, 2X, 4X, 8X, 16X, 32X, 64X; turn the Shuttle Wheel counter-clockwise to decrease playback speed -1X, -2X, -4X, -8X, -16X, -32X, -64X; turn the Jog Ring to advance frame-by-frame
- **PTZ Control:** Turn right to zoom IN, turn left to zoom OUT\*

7. **Channel/Number buttons:** Press to view selected channels in full-screen; press to enter passwords in login windows.

**NOTE:** Channel/number buttons may vary depending on model; 16-channel model shown.

8. **POWER:** Press to open the Power Off/Log Off menu; press to power the system on (login required).

9. **USB ports:** Connect USB devices such as mice, flash drives, and external HDDs.

**NOTE:** External USB devices are not included with the system.

10. **LED Indicators:** LED indicators for **PWR** (power), **REC** (record), **NET** (network), **ALM** (alarm)

# REAR PANEL

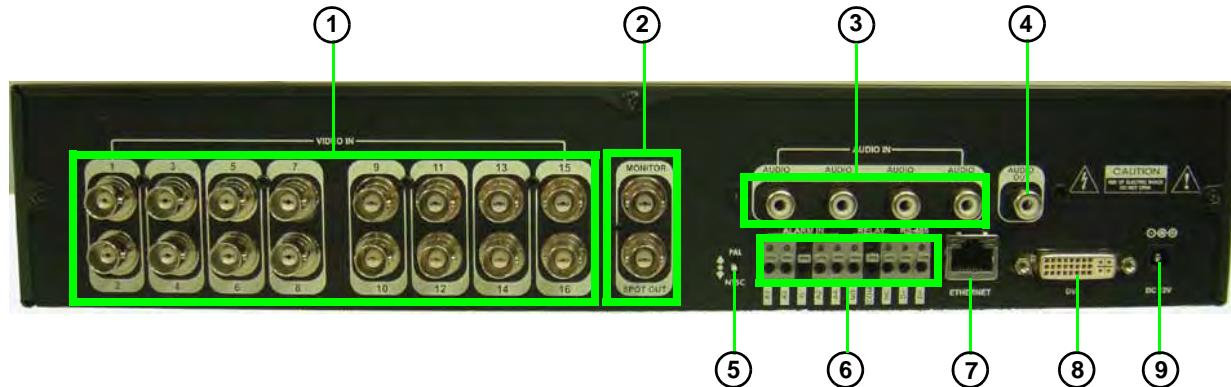
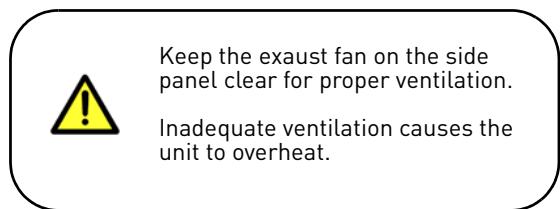


Figure 2.2 Rear panel (16-channel model shown)

1. **VIDEO IN** : Camera input ports for BNC cameras; (16-channel configuration shown).
2. **MONITOR**: Composite output (top) to connect the system to a secondary monitor or DVR.
  - **SPOT OUT**: Spot Monitor output (bottom) (Spot monitor only displays cameras, not system menus).
3. **AUDIO IN**: Connect up to four audio inputs.
4. **AUDIO OUT**: Connect a single audio output.
5. **PAL / NTSC** : Switch between PAL and NTSC video output.
6. **ALARM IN**: Alarm block to connect external alarm or motion devices (not included).
  - **RELAY**: One alarm output can be connected.
  - **RS-485**: PTZ (Pan, Tilt, Zoom) camera connection.
7. **LAN**: Connect an Ethernet cable to connect the system to a router or switch (not included).
8. **DVI**: DVI output to connect the system to a DVI monitor (not included). Use a DVI to VGA adapter (not included) to connect a VGA monitor to the system.
9. **DC 12V**: Port for 12V power cable (included).



# CONTROL DEVICES

## Remote Control

The remote control is the primary input device for the system.

1. **PWR:** Press to power the system ON/OFF (password required).
2. **SETUP:** Press to open the system menu.
3. **Channel buttons:** Press to view individual channels in full-screen; press to input passwords; when entering camera titles, press for alpha-numeric characters.
4. **ID:** Press to select the DVR ID.  
**NOTE:** If using several systems in a stack, you can use one DVR ID to control all the systems with one remote control, or apply unique DVR IDs to each system to control them with individual remote controls.
5. **RETURN:** Press to cancel/deselect previous screen.
6. **ENTER:** Press to confirm menu options/selections.
7. **Navigation/Menu:** Press for playback control, menu navigation, and PTZ/focus control.
  - **▲:** Press to move cursor up; increase values in certain menu options
  - **▼:** Press to move cursor down; decrease values in certain menu options
  - **◀:** Press to move cursor left
  - **▶:** Press to move cursor right
  - **II :** Press to pause playback
8. **◀◀ :** Press to increase reverse playback speed 1X, 2X, 4X, 8X, and 16X.
9. **▶▶ :** Press to increase forward playback speed 1X, 2X, 4X, 8X, and 16X
10. **Mode buttons:**
  - **DISP:** Press to change the display view
  - **SEARCH:** Press to open the Search Menu
  - **P/T/Z:** Press to open the PTZ control menu
  - **PANIC:** Press to start/stop panic recording
  - **KEYLOCK:** Press to lock buttons on the remote control and front panel
  - **SEQUENCE:** Press to start/stop Auto Sequence mode
  - **ZOOM:** Press to enable/disable Zoom mode
  - **ARCHIVE:** Press to open the Archive menu

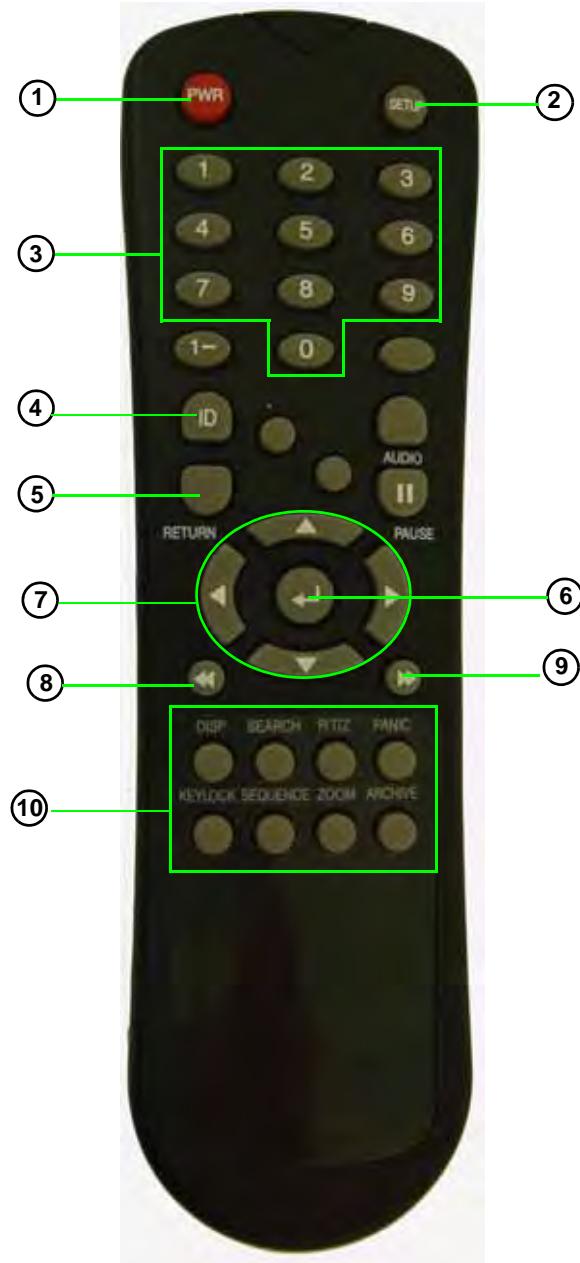


Figure 3.0 Remote Control

# Mouse Control

The mouse is an optional control device for the system.

**NOTE:** A mouse is not included with this system.

To connect a USB mouse:

- Connect a USB mouse to the USB port on the front panel

**NOTE:** If using a PS/2 mouse (not included), a PS/2-to-USB adapter (not included) is required

1. **Left-Button:** While in a split-screen display mode, double-click an individual channel to view it in full-screen; double-click again to return to the split-screen display mode. While navigating menus, click to select a menu option.
2. **Right-Button:** Right-click anywhere on the screen to open the Quick Menu.
3. **Scroll-Wheel:** N/A

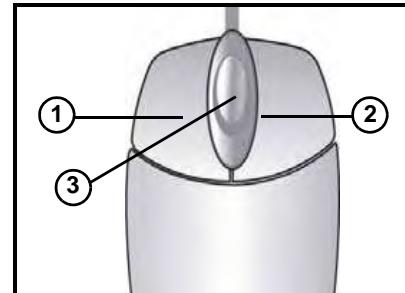


Figure 3.1 Mouse buttons

## Tips and Tricks

When navigating the menus using the remote control, perform the following:

- Press the **▲▼◀▶** buttons to move the on-screen cursor
- Press the **ENTER** button to select an option (cursor turns from GREEN to YELLOW)
- Press the **RETURN** button to de-select the option (cursor turns GREEN)

## Quickly Access System Information

- To access vital system information such as your MAC address and IP address, press **ENTER** on your remote or press the **ENTER** button on the front panel.



Figure 3.2 Remote control buttons

If your system has 16 channels, you may only see CH1~8 in some menus.

- Select **PAGE DOWN / PAGE UP** to turn menu pages to see all the channels on your system.



Figure 3.3 Page DOWN/Page UP (16-channel models only)

# USING THE SYSTEM

With the system properly connected, you can power on and begin using the system.

## Powering On The System

To power on the system:

1. Press the **POWER** button on the remote control or front panel. After an initial loading sequence, the system displays a live split-screen mode. By default, the system begins recording continuously from any connected cameras.
2. Using the Virtual Keyboard, enter your **ADMIN password** (by default, **1234**) and select **ENTER** to log onto the system.

**NOTE:** The default system administrator (ADMIN) password is **1234**. For complete information on changing your password and managing users on the system, see “User” on page 42.

To power off the system:

1. Press the **PWR** button on the remote control to open the Status Bar; press the **PWR button** again to open the Log Off/Power Off window.
2. Select **POWER OFF** and press **ENTER** on the remote control or front panel.
3. Using the Virtual Keyboard, enter your **ADMIN password** (by default, **1234**) and select **ENTER** to log off the system.



Figure 4.0 Log on to the system after start-up

## Using the Virtual Keyboard

Use the Virtual Keyboard to enter passwords and camera titles on the system.

To use the Virtual Keyboard:

1. Select any desired letter, number, or character.
2. Press **ENTER** on the remote control or front panel.

**NOTE:** If desired, select “A” and press **ENTER** to shift between upper and lowercase letters.



Figure 4.1 Virtual Keyboard

## On-Screen Display

By default, the system launches with a live, split-screen view:

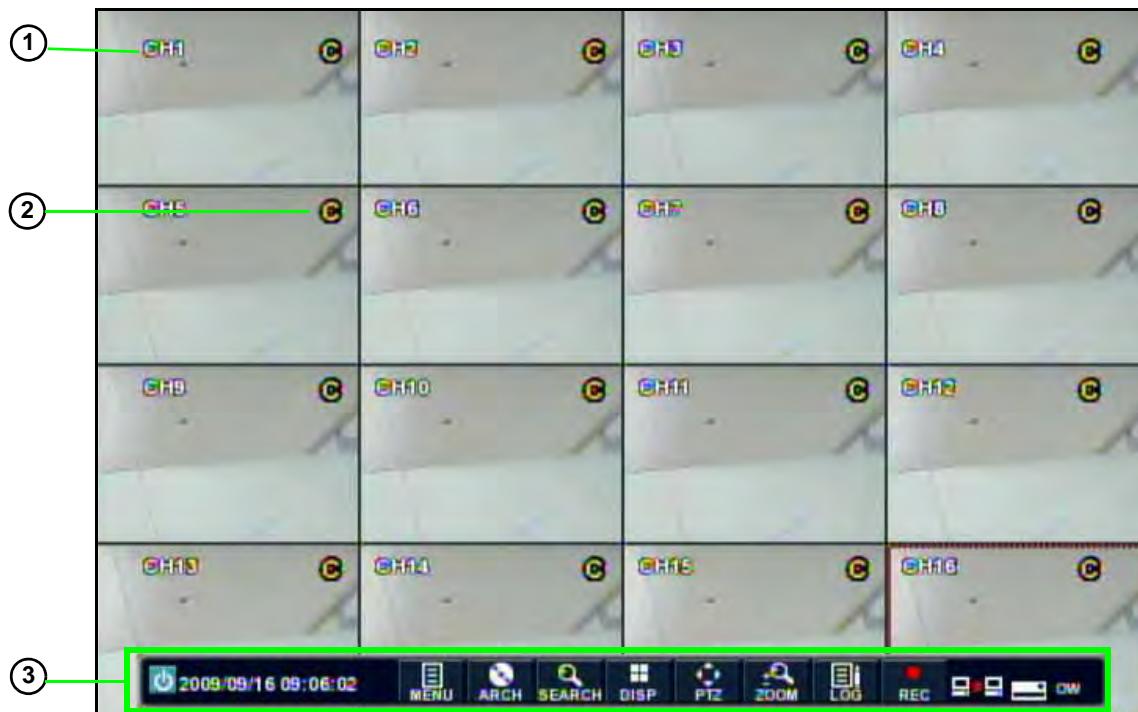


Figure 4.2 Main system display (16-channel model shown)

1. **Channel Title:** Display the channel number or title.
2. **Recording Status:** Different icons represent different recording modes: Continuous, Motion, Schedule, and Panic.

**C** Continuous Recording

**M** Motion Recording

**P** Panic Recording

**A** Alarm Recording

**NOTE:** For details, see “Using the Recording Menu” on page 51.

3. **Status Bar:** Press the **SETUP** button to open the Status Bar at the bottom of the screen. When the Status Bar is not in use, only the date and time remain on-screen.



Figure 4.3 Date/Time stamp

## Using the Status Bar

The Status Bar gives you access to the many modes and functions of the system.

To open the Status Bar:

- Press the **SETUP** button on the remote control or front panel

**OR**

- Move the mouse (not included)

**NOTE:** By default, login is required when opening menus on the system. If desired, you can disable the password requirement from the System Management menu. For details, see “System Management” on page 39.



Figure 5.0 Status Bar. The Status Bar auto-hides after 10-seconds of inactivity.

1. **Power:** Log off the current user or power off the system.



**NOTE:** You must enter your user name and password when logging off or powering off the system.

2. **Date & Time:** Shows the current date and time on the system.
3. **MENU:** Opens the system menu (System Setup, Record Setup). For details, see “Using the System Menu” on page 30.
4. **ARCH.:** Opens the Archive (Backup) menu. For details, see “Archiving” on page 24.
5. **SEARCH:** Opens the Search menu. For details, see “Search” on page 20.
6. **DISPLAY:** Opens the pop-up display window, which allows you to select up to six display modes as well as enable/disable Auto Sequence. For details, see “Changing Display Modes” on page 11.
7. **PTZ:** Opens the PTZ control window. For details, see “PTZ” on page 15.
8. **ZOOM:** Starts/stops zoom mode for selected channel. For details, see “Zoom” on page 14.
9. **LOG:** Opens the Log File menu. For details, see “Log” on page 16.
10. **REC:** Starts/stops Panic Recording Mode. For details, see “Panic Recording” on page 19.
11. **Network Status:** Shows the status of the network connection. Green=network connection is stable; Blue=network connection is experiencing difficulty; Red=network connection is unstable.
12. **HDD Status:** “OW” indicates disk overwrite is enabled. For details, see “Disk Manage” on page 50.

## Changing Display Modes

The system has six different display modes as well as an Auto Sequence mode.

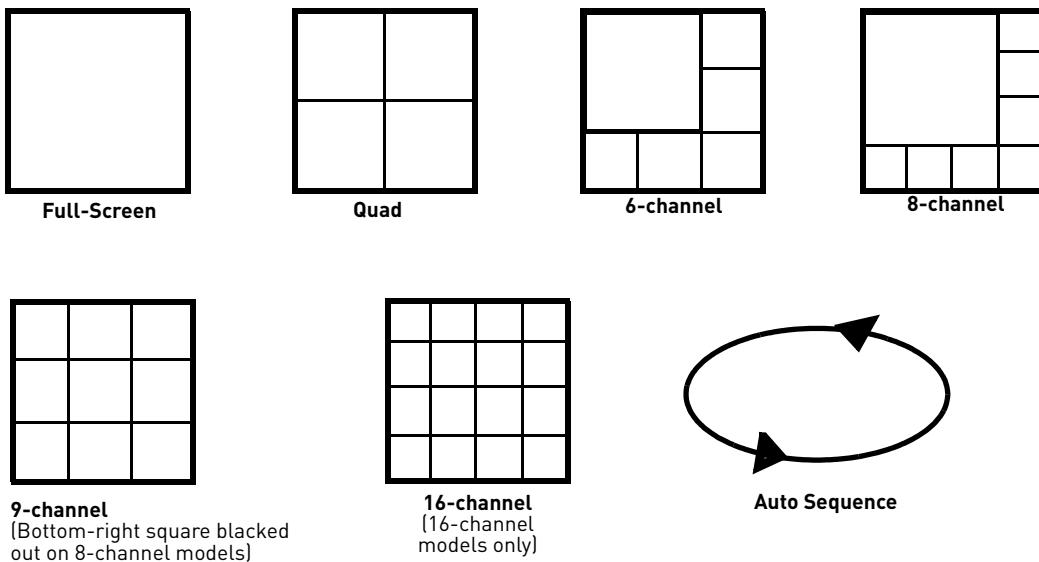


Figure 5.2 Power/log off options

To change display modes:

1. Press the **DISP button** twice. The display pop-up window opens.
2. Select one of the following and press the **ENTER button**:

- : Single channel full-screen mode
- : Quad
- : 6-channel split-screen
- : 8-channel split-screen
- : 9-channel split-screen
- : 16-channel split-screen



**NOTE:** Select the Quad and Split-Screen buttons repeatedly to change the layout of displayed channels.

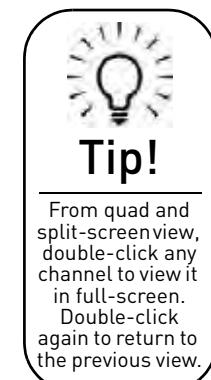
## USING AUTO SEQUENCE

Auto Sequence allows you to view all channels in full-screen in an automatic sequence.

To start Auto Sequence:

1. Press the **SEQUENCE button**. Auto Sequence begins.
2. Press the **SEQUENCE button** to exit Auto Sequence mode.

You can program more complex sequence in the system's Setup Menu. For details, see "Sequence" on page 35.



## Quick Menu (Mouse Only)

If using a mouse (not included), right-click any channel to open the Quick Menu. The Quick Menu allows for quick access to key functions, including Panic Recording, Playback and PTZ.

To use the Quick Menu:

1. Right-click on a desired channel. The Quick Menu opens.
2. Select one of the following:
  - **PTZ**: Open the PTZ control window (login required)
  - **Zoom**: Open Zoom Mode. For details, see "Zoom" on page 14.
  - **Playback**: Opens Quick Play to view video from 10 seconds ago, 20 seconds ago, 30 seconds ago, or 1 minute ago in a pop-up window. You can also select Go to... to open the Time Selection window.
  - **Record Start (Stop)**: Start/stop panic recording.
3. Click anywhere outside the Quick Menu to exit.

### QUICK PLAY (MOUSE ONLY)

To begin playback:

1. Right-click on any desired channel. The Quick Menu opens.
2. From the Quick Menu, select **Playback**.
3. Select one of the following:
  - **10 sec ago**
  - **20 sec ago**
  - **30 sec ago**
  - **1 min ago**

**NOTE:** Selecting "10 sec ago ~ 1 min ago" will open the Quick Play main screen—continue to **step 4**.

• **go to...**

**NOTE:** Selecting "go to..." will open the Time Selection window—go to **step 5**.

4. The video immediately begins playing. Use the following buttons to control playback:
  - **◀◀** : Increase reverse playback speed 1X, 2X, 4X, 8X, 16X, 32X, or 64X
  - **◀** : Jump to beginning of clip
  - **◀** : Reverse playback
  - **II** : Pause/Play
  - **▶** : Forward playback



Figure 6.0 Quick Menu



Figure 6.1 Quick Play main screen



Figure 6.2 Open the Quick Menu and select a playback time

- ► : Jump to end of clip
- ►► : Increase forward playback speed 1X, 2X, 4X, 8X, 16X, 32X, or 64X
- X: Close mini-player

5. If you select "Go to..." the Time Selection window opens. Select the year, month, day, hour, minutes, and seconds and adjust by clicking the UP /DOWN arrows.

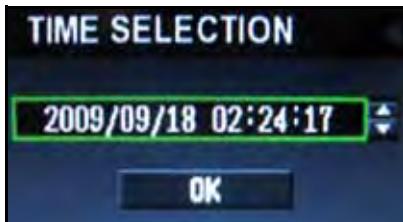


Figure 6.3 Time Selection window

6. When you have selected a date and time, click **OK**. The Quick Play main screen opens. Use the playback controls as described in step 4.

## Using the Jog Ring/Shuttle Wheel

During Playback, you can use the Jog Ring/Shuttle Wheel on the front panel to increase/decrease playback speed.

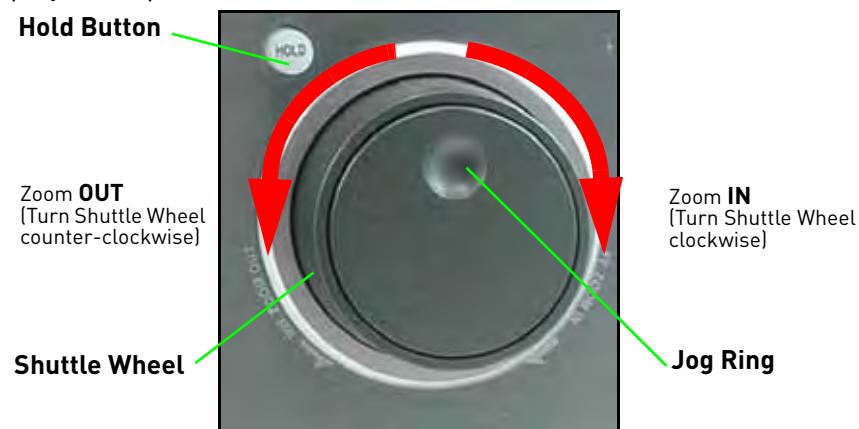


Figure 7.0 Jog Ring/Shuttle Wheel

To use the Jog Ring/Shuttle Wheel:

1. Perform any of the following:
  - Turn the Shuttle Wheel steadily **clockwise** to increase playback speed (1X, 2X, 4X, 8X, 16X, 32X, 64X). Release the Shuttle Wheel to pause playback.
  - Turn the Shuttle Wheel steadily **counter-clockwise** to increase reverse playback speed (-1X, -2X, -4X, -8X, -16X, -32X, -64X). Release the Shuttle Wheel to pause playback.
  - Press the **HOLD button** to maintain the selected speed (even if the Shuttle Wheel is released).
  - With playback paused, turn the Jog Ring clockwise or counter-clockwise to advance the video frame-by-frame.

**NOTE:** Playback speed and direction can also be controlled using the five playback buttons located beside the Jog Ring/Shuttle Wheel on the front panel.

2. Press **RETURN** on the remote control or front panel to exit playback.

## Zoom

Use the system's built-in 8X digital zoom to get a closer look at images in full-screen (full-screen mode only).

To use zoom:

1. From live viewing, select a channel to view in full-screen (press one of the number buttons on the remote control or front panel).

**NOTE:** The zoom function will not work if the main display screen is in quad or split-screen configurations.

2. Press the **ZOOM button**. By default, the system will zoom in to the center of the selected channel.



Figure 8.0 Zoom frame (full-screen only)

3. Perform any of the following:
  - Press the **▲▼◀▶** buttons to scan the image
  - Turn the **Shuttle Wheel** steadily clockwise to zoom **IN**
  - Turn the **Shuttle Wheel** steadily counter-clockwise to zoom **OUT**
4. Click the **RETURN button** to exit Zoom mode and return to live viewing.

## PTZ

Use the PTZ menu to control any PTZ cameras (not included) connected to your system. For details on connecting PTZ cameras, see “Appendix D: Connecting PTZ Cameras” on page 103.

**NOTE:** It is recommended to use a mouse (not included) with the PTZ control menu.

To open the PTZ menu:

- Press the **PTZ** button on the remote control. If necessary, login using your user name and password (by default, user name: **ADMIN**, password: **1234**).

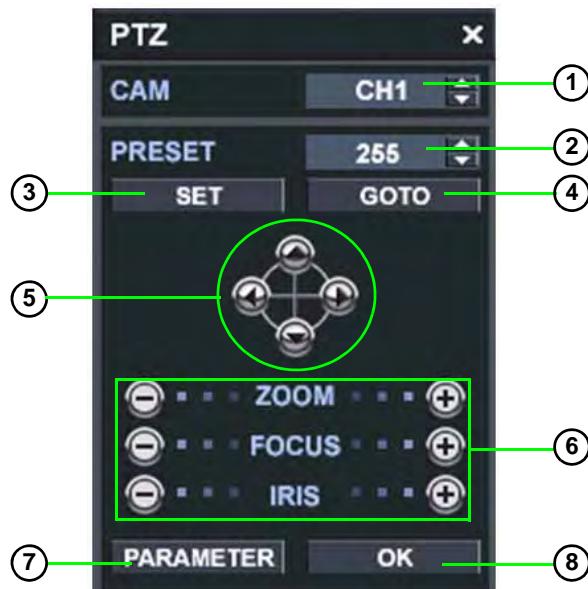
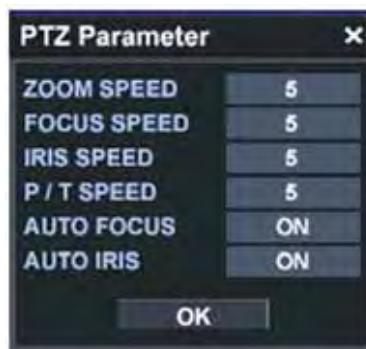


Figure 9.0 Zoom frame (full-screen only)

1. **CAM:** Select channels
2. **PRESET:** Select presets.
3. **SET:** Save a preset.
4. **GO TO:** Go to a saved preset position.
5. **Pan/Tilt Navigation:**
  - **▲▼:** Tilt camera up/down
  - **◀▶:** Pan camera left/right
6. **ZOOM/FOCUS/IRIS:** Increase or decrease Zoom, Focus and Iris focusing.
7. **PARAMETER:** Opens the Parameter menu (see figure 9.1).
8. **OK:** Close the PTZ menu.

For details on connecting a PTZ camera to your system, see “Appendix D: Connecting PTZ Cameras” on page 103.



- The PTZ Parameter menu displays the current settings of your PTZ camera (Zoom speed, Focus speed, Iris speed, Pan/Tilt speed, Auto Focus on/off, Auto Iris on/off)
- Click **OK** to exit

Figure 9.1 Zoom frame (full-screen only)

## Log

Use the Log file to view recent events on the system, as well as view a preview video of each of these events.



Figure 10.0 Log menu with Preview window

**NOTE:** Log works with mouse only (not included).

To open the log file:

1. Move the mouse to open the Status Bar.
2. Click  (Log). The Log menu opens.

**NOTE:** By default, the Log menu opens with the Preview option enabled.

3. Click any file in the log list to view video of the event in the Preview pane.
4. Click  to move up and down the list.
5. Select/deselect the **PREVIEW box** to show/hide the Preview pane.
6. Click **X** to exit.

# SETTING THE TIME

It is highly recommended to set the time on the system before doing any recording. The time can be synchronized to a Network Time Server, or can be set manually.



Figure 11.0 Time menu

To set the date and time:

1. Press the **SETUP** button to open the Status Bar.
2. Select **MENU** and press **ENTER**.
3. Select **SYSTEM SETUP** and press **ENTER**. If necessary, login using your **ADMIN password** (by default, **1234**). The Main Menu opens.

**NOTE:** For more details, see “Date/Time” on page 39.

4. From the Main Menu, select **SYSTEM** and press **ENTER**. The System menu opens.
5. Select **DATE / TIME** and press **ENTER**.
6. Perform one of the following:
  - Under NETWORK TIME SERVER SETUP, select **SYNC.** and press **ENTER** to synchronize the system to the network time server (the system must be properly connected to your network in order to use this function)

**OR**

- Under DATE TIME, manually select the date and time (yyyy/mm/dd; hh/mm/ss) and adjust using the **▲▼** buttons

**NOTE:** If desired, change the Date Format and the Time Format.

7. Select **APPLY** and press **ENTER** to save your changes.
8. Select **CLOSE** and press **ENTER** to exit.

**ATTENTION:** If the saved time is earlier than the current time on the system, you will be warned that overlapped data will be erased. Select **YES** and press **ENTER** to accept the changes. Please allow a few moments for the overlapped video data to be deleted.

# RECORDING

By default, the system is set to record continuously at startup from any connected cameras. It is highly recommended to keep continuous recording on at all times.

The system can perform Continuous Recording, Motion Recording, Continuous + Motion Recording, Alarm Recording, and Panic Recording. You can set a customized daily or weekly recording schedule using these recording modes. For complete details, see “Using the Recording Menu” on page 51.

## Continuous Recording

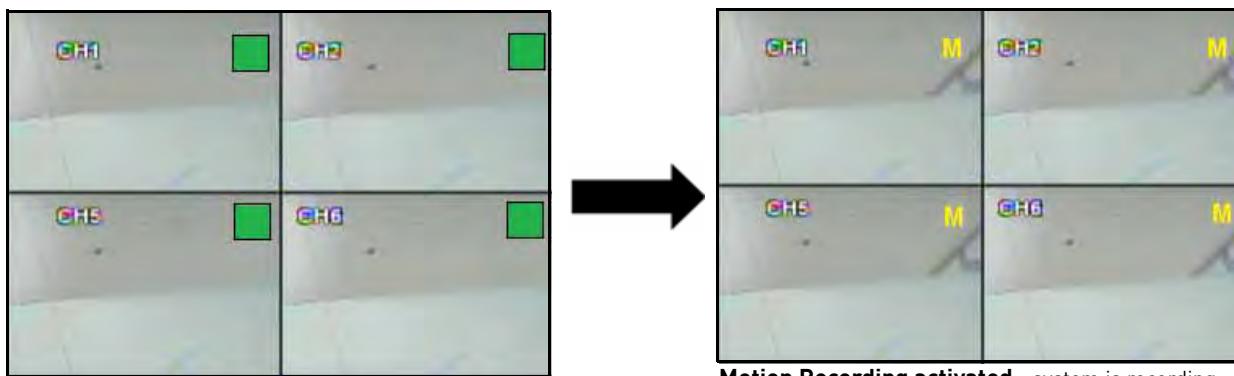
By default, all camera channels are enabled with continuous recording. During Continuous Recording, a yellow “C” appears in the top-right corner of each channel.



Figure 12.0 Continuous recording on all channels (Quad display mode shown)

## Motion Recording

The system will **only** record when motion is detected by a camera. When Motion Recording is enabled but not active, a **green square** appears in the top-right corner of every channel—the green square indicates the system **IS NOT** recording. When motion is detected, a yellow “M” appears in the top-right corner of each channel. You can set the pre and post recording time in the Recording Operations menu.



**Motion Recording enabled but inactive—**  
system **IS NOT** recording.

**Motion Recording activated—**system is recording.

Figure 12.1 Motion Recording icons (inactive and active)

## Continuous + Motion Recording

The system records continuously from any connected cameras. When motion is detected, the system will Log the event. This allows you to filter search results by motion events only.

**NOTE:** When Motion recording begins, the recording frame rate will be the same as the settings for Continuous recording.

## Alarm Recording

When an alarm input is triggered, the system will continue to record, but can apply unique recording parameters that you can set in the Alarm menu (Main Menu>**Alarm**). You can also set the system to activate an alarm output. For example, a window sensor (not included) connected to the alarm input block on the rear panel is triggered; the system begins alarm recording and simultaneously activates an external siren (not included) connected to the alarm output block on the rear panel.

## Panic Recording

Press the **PANIC button** on the remote control or click  to start/stop Panic Recording. Panic Recording features the highest quality recording parameters available on the system. A "P" appears in the top-right corner during Panic Recording.

**NOTE:** Panic Recording will override any functions or operations currently on the system.



Figure 12.2 Panic Recording icon (top-right corner)

## Recording Audio

The system can record up to four channels of audio. You must have an audio enabled camera or self-powered microphone connected to the system in order to use this function. You can enable/disable audio recording in the Continuous/Motion Recording menu. For details, see page 52.

# SEARCH

View recorded video on the system using the Search menu. You can search by Time or by Event.

To open the Search Menu:

- Press the **SEARCH button** twice. If necessary, login using your user name and password.

## Time Search

To search by Time:

1. Select **SEARCH BY TIME** and press **ENTER**.



Note: The Panorama Playback feature will be enabled in a future update.

Figure 13.0 Search menu—Search by Time

2. Select the calendar and press **ENTER**. The calendar is highlighted in **YELLOW**.
3. Press the **▲▼◀▶** buttons to select the date, the month and year. As different days are selected, the timeline display changes to show recorded video from that day. Recorded video is color coded:
  - **WHITE**=Panic recording
  - **GREEN**=Motion recording
  - **SKY BLUE**=Continuous recording
  - **RED**=Alarm recording
  - **PINK**=Inactive motion recording ("NO RECORD" will appear during playback)
4. Press **RETURN** to deselect the calendar.
5. Select the Timeline Display and press **ENTER**.
6. Press the **▲▼◀▶** buttons to move the Timeline Cursor. The time of the recorded content appears below the calendar.
7. Press **RETURN** to deselect the Timeline Display.
8. Select **PLAY** and press **ENTER**. Playback begins. For details, see "Playback" on page 22.

## Event Search

To search by Event:

1. Select **SEARCH BY EVENT** and press **ENTER**.



Figure 13.3 Search menu—Search by Event

2. Press the **▲▼◀▶ buttons** and the **ENTER button** to select/deselect individual channels or select **ALL**.
3. Press the **▲▼◀▶ buttons** and the **ENTER button** to select/deselect **SETUP, MOTION, SMART** (HDD events), **SYSTEM, ALARM, VLOSS, RECORD**, or select **ALL**.
4. Under **FROM**, enter a start time. Under **TO**, enter a stop time.

**NOTE:** Selected items highlight with a GREEN box. Press ENTER on highlighted items to turn the highlight box YELLOW. Once the box turns yellow, you can adjust the settings.

5. Select **NEAREST** (default) or **FARTHEST** to help organize the search results.
6. Select **SEARCH** and press **ENTER**. The Date/Time and Log fields become populated with the event data.

**NOTE:** For 16-channel systems, select **PAGE UP/PAGE DOWN** to change pages to view other channels.

7. Select an event from the Log list and press **ENTER**. Playback for the selected event begins. For details, see “Playback” on page 22.



## PLAYBACK

Playback Mode is accessed through the Search Menu. You can also open Quick Play mode from the Quick Menu (mouse only).

**NOTE:** By default, playback begins in split-screen mode (number of split-screen channels varies by model).



Figure 14.0 Playback (16-channel model shown)

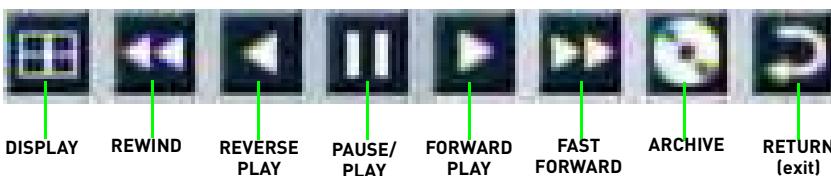
To open Playback mode:

1. Open the **SEARCH** menu. If necessary, login using your user name and password.
2. Search for recorded video using the calendar and time bars.
3. Select **PLAY** and press **ENTER**. Playback begins.
4. During playback, perform any of the following:
  - **DISP** button: Change the display view: single channel, quad, or split-screen
  - **◀◀** : Increase reverse playback speed -1X, -2X, -4X, -8X, -16X, -32X, -64X
  - **◀** : Reverse playback
  - **⏸** : Pause/play
  - **▶** : Forward playback
  - **▶▶** : Increase forward playback speed 1X, 2X, 4X, 8X, 16X, 32X, 64X

**NOTE:** You can use the front panel buttons to control video playback.

- Press the **ARCHIVE** button to backup the selected video to an Archive List

**NOTE:** If using a mouse:



5. Press **RETURN** to exit playback

# Archiving Video

You can backup video to an AVI archive list while in Playback Mode.

To setup a video archive:

1. During playback, press the **ARCHIVE** button on the remote control or click . The Archive Setup window opens.
2. Select **TAG** and press **ENTER** to open the Virtual Keyboard and enter a name/title for the video.
3. Under AVI CHANNEL, select/deselect **the channel(s) from which to archive the video**.

**NOTE:** FROM (start time) begins when you select START; TO (stop time) will be set once you manually STOP the archive process (see step 6).

4. Select **START** and press **ENTER**. The Archive Setup window closes and the system returns to playback.
5. Press the **ARCHIVE** button or click  to open Archive Setup window.
6. Select **CONTINUE** and press **ENTER** to allow the archive setup to continue to a desired time (Archive Setup window closes)  
**OR**
6. Select **STOP** and press **ENTER** to stop the archive setup.
7. Select **RESERVE** and press **ENTER**. Select **OK** and press **ENTER** to close the success prompt.
8. Select **CLOSE** and press **ENTER** to exit.

The archived video has been added to the AVI Archive List. For more details, see “Reserved Data Management” on page 27.



Figure 14.1 Archiving Setup menu—enter a tag and select START

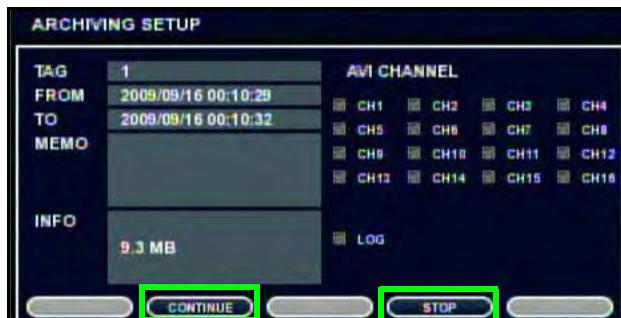


Figure 14.2 Select CONTINUE or select STOP



Figure 14.3 Select RESERVE



Figure 14.4 Select OK in the success prompt

# ARCHIVING

Use the Archiving menu to backup data to a USB flash drive, external USB HDD, or a blank DVD/CD (not included).

**NOTE:** Only the ADMIN has authority to archive recorded data.

## Before You Start

- Connect a USB flash drive/external USB HDD to the system or insert a blank DVD/CD in the optical drive prior to archiving data

## New Archiving

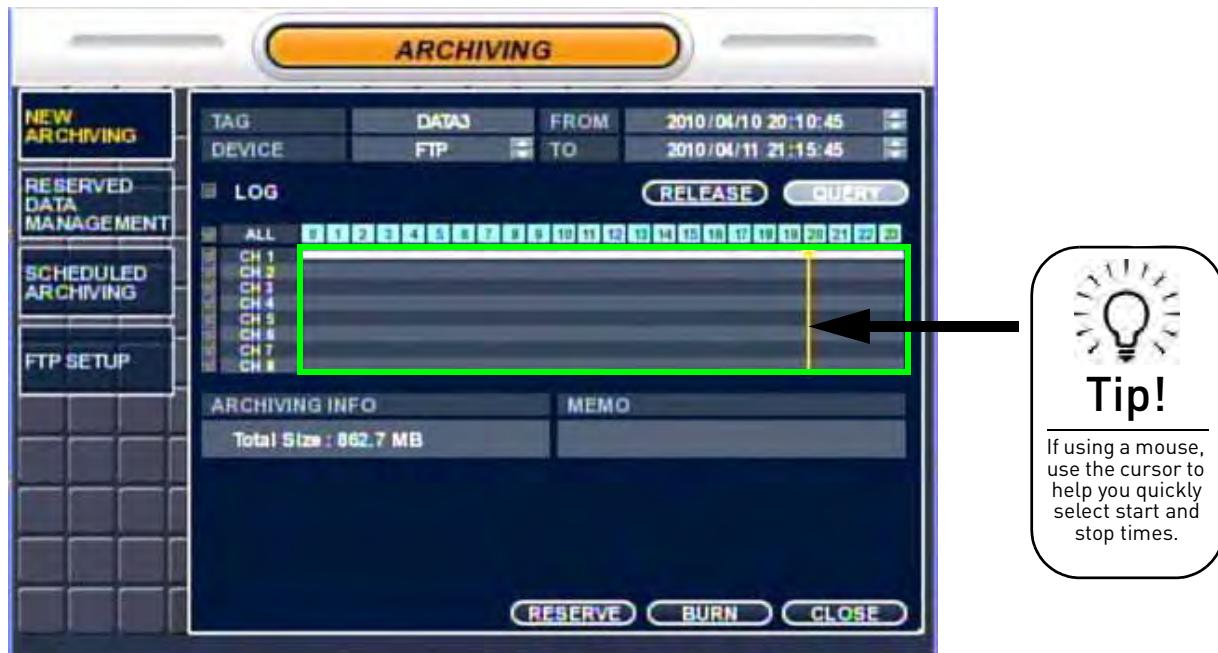


Figure 15.0 New Archiving menu (16-channel model shown)

Use the New Archiving Menu to search for data on the system and copy to a USB drive or DVD/CD.

To open the New Archiving menu:

1. Press the **SETUP** button on the remote control to open the Status Bar.
2. Select **ARCH** and press **ENTER**. If necessary, login using your ADMIN password.

**NOTE:** Only the ADMIN has access to the Archiving menu.

**NOTE:** Video data is saved in AVI format. Video is compressed with H.264.

## ARCHIVING DATA

Search for data using start and stop times and then archive the data to a USB device or DVD/CD.

To search for data:

1. Select **NEW ARCHIVING** and press **ENTER**.
2. Under TAG, press **ENTER** to open the Virtual Keyboard and enter a name/title for your archive file.

**NOTE:** A tag is required for reserving and burning archive data.

**NOTE:** You can also tag recorded data using the Playback menu. For details, see "Archiving Video" on page 23.

3. Under DEVICE, select the device for archiving: **USB flash drive**, **USB HDD**, or the **CD/DVD drive**.

**NOTE:** The device name may appear and not the device itself. For example, in figure 15.1, "Data Traveller 2.0" is the type of USB flash drive connected to the system.

4. Select **FROM** and set a **start time** for the search.
5. Select **TO** and set a **stop time** for the search.

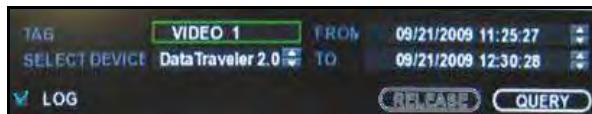


Figure 15.1 Set a tag and start/stop times

6. Select **ALL** to select/deselect **all channels**, or, press the **▲▼** buttons to select/deselect **individual channels**.

7. Select **QUERY** and press **ENTER**. The system scans for recorded data based on your selected criteria. The size of the archive data appears under "ARCHIVING INFO."



Figure 15.2 Set criteria and select QUERY

**NOTE:** If you receive an error message after selecting Query, please ensure you have entered correct start and stop times.

8. If desired, select **RELEASE** and press **ENTER** to clear the search criteria.

Once you have queried the data, you can **Reserve** the data (save the queried video to an AVI archive list for burning or future reference) or **Burn** the data (copy the data to a USB device or blank CD/DVD).

For details on Reserving and Burning data, see page 26.

### Archiving Options

If desired, you can apply the following archiving options to your archive data:

- **LOG:** Select **LOG** to add a log text file to the archived data
- **MEMO:** Select **MEMO** and press **ENTER** to open the Virtual Keyboard; enter a short description or comment for the archived data (max. 20 characters)



Figure 15.3 Log and Memo options

## BURNING DATA

Copy/write video data to a USB device or blank CD/DVD.

**NOTE:** If you have not already done so, please connect a USB device to the system, or insert a blank CD/DVD in the optical drive.

To burn (copy) data to a USB drive or disc:

1. Open the **NEW ARCHIVING** menu and search for recorded data using customized criteria.
- NOTE:** Make sure you apply a tag to your query.
2. Select **QUERY** and press **ENTER**. The system scans for recorded data based on your selected criteria. The size of the archive data appears under "ARCHIVE INFO."
3. Select **BURN** and press **ENTER**. The Burning menu opens.

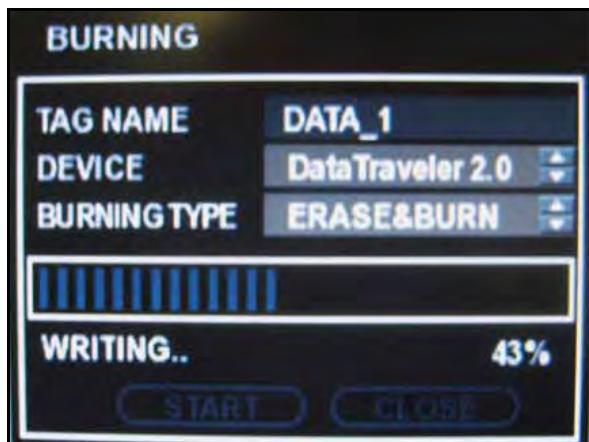


Figure 15.4 Log and Memo options

4. Under **DEVICE** select your backup media (**CD**, **DVD**, **USB flash drive**, or **USB HDD**).
5. Under **BURNING TYPE**, select **BURN** or **ERASE&BURN**.

**NOTE:** If you select **BURN**, the archive data will be burned/written to the drive/disc; if you select **ERASE&BURN**, the system will first erase any existing data on the USB device or CD/DVD-RW, and then burn the archive data.

6. Select **START** and press **ENTER**. The system will begin to extract data and then write data to the drive or disc. This may take several moments depending on the size of the recorded data.

**NOTE:** Once copying is finished, the Burning window will close.

7. Select **CLOSE** and press **ENTER** to exit.

**NOTE:** The recorded data is written to the drive/disc in AVI format. The system also copies a Backup player to view the video files on your PC, as well as an AVI codec that allows you to view the video files in Windows Media Player™.

## RESERVING DATA

Reserving data allows you to save queried video data to an AVI archive list for burning or future reference. For more details, see "Reserved Data Management" on page 27.

To reserve data:

1. Open the **NEW ARCHIVING** menu and search for recorded data using customized criteria.
- NOTE:** Make sure you apply a tag to your query.
2. Select **QUERY** and press **ENTER**. The system scans for recorded data based on your selected criteria. The size of the archive data appears under "ARCHIVE INFO."
3. Select **RESERVE** and press **ENTER**. A success prompt is displayed on-screen.

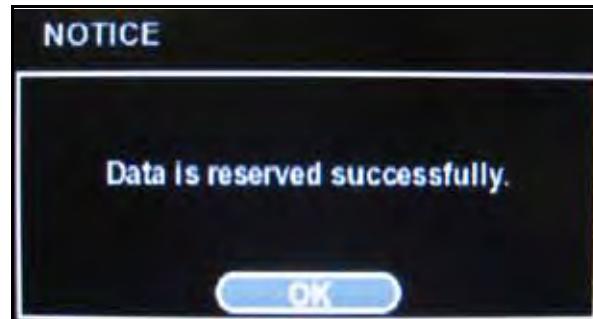


Figure 15.5 Successful reserve prompt

4. From the prompt, select **OK** and press **ENTER**.

**NOTE:** If you do not receive a success prompt, please make sure you have applied a tag to the archive file

## Reserved Data Management

Use the Reserved Data Management menu to manage your archived AVI.



Figure 15.6 Reserved Data Management menu

## VIEWING FILE INFORMATION

View information on reserved video and image files.

To view file information:

1. Select **RESERVED DATA MANAGEMENT** and press **ENTER**.
2. Select a file under AVI ARCHIVING LIST or SNAPSHOT ARCHIVING LIST and press **ENTER**. The file is highlighted in a light grey frame.
3. Select **INFORMATION** and press **ENTER**. The file information window contains the following:
  - **TAG:** The name of the file
  - **FROM:** Start time
  - **TO:** Stop time
  - **MEMO:** Description or comment
  - **INFO:** Size of the file
  - **AVI CHANNEL:** Selected boxes indicate the channel(s) present in the file

- **LOG:** Selected box indicates that a log was applied to the archive data



Figure 15.7 File information (AVI and snapshot)

4. Select **CLOSE** and press **ENTER** to exit.

## BURNING FILES

Select files from the archive lists to copy to a USB device or blank CD/DVD. Files can be copied multiple times.

To burn (copy) a file:

1. Connect a **USB device** to the system or insert a blank **CD/DVD** in the optical drive.
2. Select **RESERVED DATA MANAGEMENT** and press **ENTER**.
3. Select a file under AVI ARCHIVING LIST and press **ENTER**. The file is highlighted in a light grey frame.
4. Select **BURN** and press **ENTER**. The Burning menu opens.

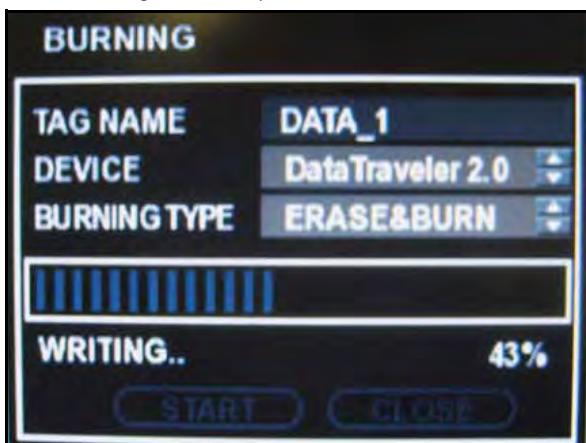


Figure 15.8 Log and Memo options

5. Under **DEVICE** select your backup media (**CD**, **DVD**, **USB flash drive**, or **USB HDD**).
6. Under **BURNING TYPE**, select **BURN** or **ERASE&BURN**.

**NOTE:** If you select BURN, the archive data will be burned/written to the drive/disc; if you select ERASE&BURN, the system will first erase any existing data on the USB device or CD/DVD-RW, and then burn the archive data.

7. Select **START** and press **ENTER**. The system will begin to extract data and then write data to the drive or disc. This may take several moments depending on the size of the recorded data.

**NOTE:** Once copying is finished, the Burning window will close.

8. Select **CLOSE** and press **ENTER** to exit.

## DELETING FILES

Delete video and image files in the archive lists.

**ATTENTION:** The system immediately deletes the files. Please use caution when deleting files from the Archive Lists.

To delete a file:

1. Select **RESERVED DATA MANAGEMENT** and press **ENTER**.
2. Select a file under AVI ARCHIVING LIST and press **ENTER**. The file is highlighted in a light grey frame.
3. Select **DELETE** and press **ENTER**.



Figure 15.9 Files are immediately deleted when you click **DELETE**

4. Select **CLOSE** and press **ENTER** to exit.

## SCHEDULED ARCHIVING

Scheduled Archiving allows you to back up your videos to a USB device or FTP server on a daily or individual basis.

To activate Scheduled Archiving:

1. Click the **SCHEDULED ARCHIVING** tab on the left.
  - The Scheduled Archiving tab opens.



Figure 15.10 Scheduled Archiving window.

2. Configure the following by clicking **▲▼** to adjust the values:
  - OPERATION: Select **ON**.
  - DEVICE: Select **USB** (for USB devices) or **FTP**.

**NOTE:** The "FTP" option requires you to configure a FTP server. For details, see "FTP Setup" on page 29.

  - MODE: Select **ONCE** or **DAILY**.
  - START TIME: Enter a time you want the system to begin archiving.
  - FROM : Enter the time you want the system to start archiving data.
  - TO: Enter the time you want the system to stop archiving data.
3. Under the channel list, select the AUDIO and CAMERA channels you wish to include in the archiving process.
4. Click **APPLY** to save your settings.

## FTP SETUP

The system is capable of archiving data to a FTP (File Transfer Protocol) location.

**NOTE:** It is recommended to archive data to a local FTP address (i.e. an internal network, local NAS box).

To configure your FTP settings:

1. Click the **FTP SETUP** tab on the left.
  - The FTP Setup window opens.



Figure 15.11 FTP Setup window.

2. Enter the following into the blank fields:
  - **HOST NAME:** Enter the FTP host name **without** **ftp://** (ie. `yourhostingcompany.com`)

**NOTE:** The HOST NAME field automatically includes "ftp://". You do not have to enter "ftp://" into the Host Name field.

- **PORT:** Enter the port number of the FTP server.
- **USER NAME:** Enter the FTP user name.
- **PASSWORD:** Enter the FTP password.
- **DIRECTORY:** Enter the name of the folder you want the system to create on the FTP directory (by default "ARCH").

3. Click **APPLY** to save your settings.
4. Click the **FTP TEST** button to test that the FTP connection is functional.

**NOTE:** Creating an FTP account is not covered in this manual.

# USING THE SYSTEM MENU

To open System Setup:

1. Press the **SETUP** button. The Status Bar opens
2. Select **MENU** and press **ENTER**. The Setup window opens.



Figure 16.0 Select SYSTEM SETUP

3. From the Setup window, select **SYSTEM SETUP** and press **ENTER**. If necessary, login using your **user name** and **password** (by default, user name: **ADMIN**; password: **1234**).

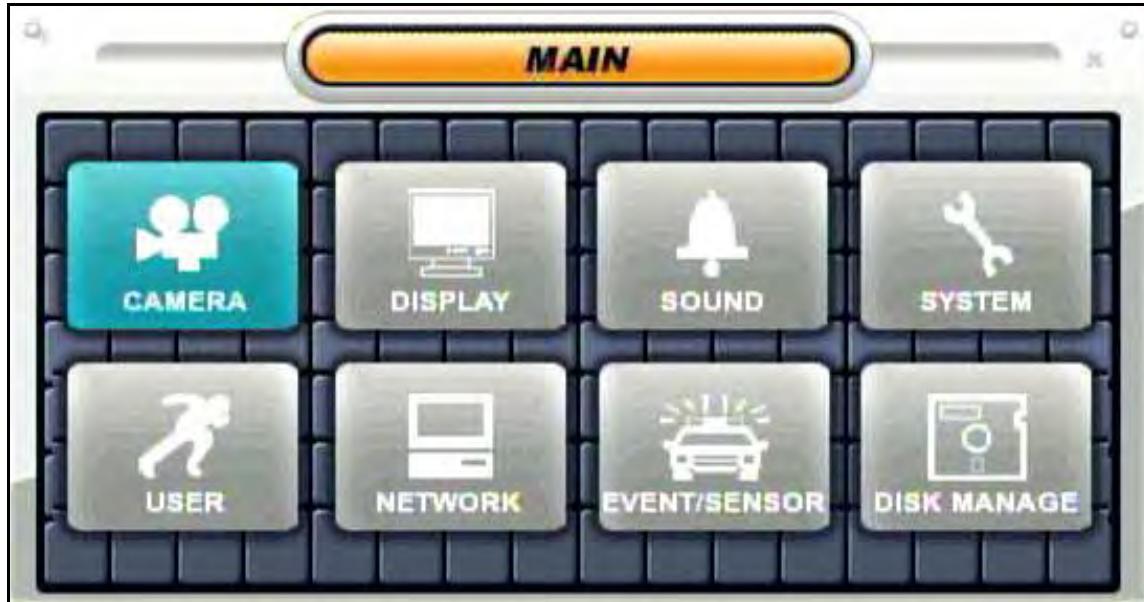
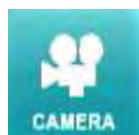


Figure 16.1 System Setup (Main system menu)

1. **CAMERA**: Configure camera setup, color setup, PTZ setup, and motion sensor settings.
2. **DISPLAY**: Configure OSD, Monitor, Auto Sequence, and Spot Out settings.
3. **SOUND**: Configure system audio, network audio, and buzzer settings.
4. **SYSTEM**: Set the date/time and configure system management options, and control devices.
5. **USER**: Set user management and user authorities and log out options.
6. **NETWORK**: Configure IP, DDNS, and email settings.
7. **EVENT / SENSOR**: Customize HDD events, alarm input/output, buzzer out, and email notification.
8. **DISK MANAGE**: Set the Record Time Limit and overwrite, and format.



## CAMERA

Use the Camera menu to configure camera, color, PTZ and motion settings.

### CAMERA SETUP

Use the Camera Setup menu to change camera titles, enable/disable covert camera, and configure audio

To configure Camera Setup options:

- Select **CAMERA SETUP** and press **ENTER**



Figure 17.0 Camera Setup menu

**NOTE:** If your system has 16 channels, select PAGE UP/PAGE DOWN to change pages.

#### Title

To change a camera title:

1. Under **TITLE**, select a channel and press **ENTER** to open the Virtual Keyboard.
2. Enter a title for the camera (up to eight alphanumeric characters), select **OK** and press **ENTER**. The Virtual Keyboard closes.
3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

#### Covert

To enable/disable covert camera:

1. Under **COVERT**, select a channel and press **ENTER**.
2. Select **ON/OFF** and press **ENTER**. If ON, the channel will appear blacked out on-screen, but the system will actually be recording.

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

#### Audio

The system can record from up to four audio channels. By default, channels 1~4 are enabled for audio recording. Use the Camera Setup menu to customize audio recording.

To enable/disable audio recording:

1. Under **AUDIO**, select a channel, and press **ENTER**.
2. Select **CH 1, CH 2, CH 3, CH 4, or OFF** and press **ENTER**.
3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

**NOTE:** CH 1~4 refer to *audio* channels 1~4. If straying from the default configuration, please ensure that you assign the correct audio channel to the corresponding camera channel. For example, you want to connect audio-capable cameras to channels 1, 2, 7 and 8: under **AUDIO**, you would select CH1 for camera 1, CH 2 for camera 2, CH 3 for camera 7, and CH 4 for camera 8.

## COLOR SETUP

Use the Color Setup menu to adjust Brightness, Contrast, Tint, and Color for each camera.



Figure 17.1 Color Setup menu

To configure color settings:

1. Select **COLOR SETUP** and press **ENTER**.
2. Select a channel and press **ENTER**. The channel opens in full-screen with the color options in a bar at the bottom of the screen.



Figure 17.2 Adjusting color options

3. Select **BRIGHTNESS, CONTRAST, TINT, or COLOR** and press **ENTER**.
4. Increase/decrease level from **0~100** and press **ENTER**.
5. Repeat steps 3~4 for remaining channels.
6. Press **RETURN** to the Color Setup menu.
7. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
8. Select **CLOSE** and press **ENTER** to exit.

## PTZ SETUP

Use the PTZ Setup menu to configure any connected PTZ cameras (not included).

**NOTE:** Make sure your PTZ camera is properly connected to the system prior to configuring PTZ options. Please refer to your PTZ camera's instruction manual to determine the correct settings for your PTZ camera.



Figure 17.3 PTZ Setup menu

To configure PTZ settings:

1. Select **PTZ SETUP** and press **ENTER**.
2. Under **ADDRESS**, select a channel and press **ENTER**; select **1~255**.
3. Under **PROTOCOL**, select **Pelco-D, Pelco-P, MESA-DOME, D-MAX, FastraxII 2, Ganz PT V3 2, Scc641, Scc643a, Spd 3300, Multix, MRX1000, WV-cs850, WV-csr604, PTC-400c, PTC-200, TAKEX, or LPT-A100L**.
4. Under **BAUD RATE**, select **9600** (default), **4800, 2400, 115200, 57600, 38400**, or **19200**.
5. Select **DETAIL** and press **ENTER**. The PTZ Property window opens.

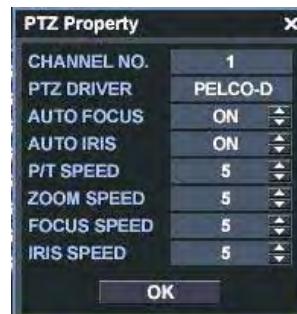


Figure 17.4 PTZ Setup menu

6. In the PTZ Property window, configure the following:
  - **AUTO FOCUS:** Select **ON/OFF**
  - **AUTO IRIS:** Select **ON/OFF**
  - **P/T SPEED, ZOOM SPEED, FOCUS SPEED, IRIS SPEED:** Select between 1 (low) ~ 10 (high)
7. Select **OK** and press **ENTER**. The PTZ Property window closes.
8. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
9. Select **CLOSE** and press **ENTER** to exit.

## MOTION SENSOR

Use the Motion Sensor menu to configure motion detection settings for each camera.



Figure 17.5 Motion Sensor menu

To configure motion settings:

1. Select **MOTION SENSOR** and press **ENTER**.
2. Under **SENSITIVITY**, select a channel and press **ENTER**.
3. Select **1~10**. The higher the number, the greater the sensitivity.

4. Select **AREA SETUP** and press **ENTER**. The Motion Area Grid opens. Use the Motion Area Grid to assign motion detection to all or specific sectors of the the grid.



Figure 17.6 Motion Grid (mouse)

5. Perform the following:
  - Press **RETURN** to open the quick menu and select **SELECT ALL**, or **DESELECT ALL**, and then select **SAVE & EXIT** and press **ENTER** (go to step 6)

**NOTE:** By default, motion is applied to ALL sectors of the grid for each camera.

**OR**

- Press **ENTER** (YELLOW cursor appears)
- Select individual squares and/or select larger areas on the grid: press **ENTER** to select a square then press **ENTER** again and press the **▲▼◀▶** buttons to select an area
- Press **ENTER** to deselect the area
- Press **RETURN** to open the quick menu and select **SAVE & EXIT** to return to the Motion Sensor menu

**NOTE:** White squares indicate motion is applied. No squares indicate motion is not applied. Yellow squares are highlighted by the cursor.

6. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
7. Select **CLOSE** and press **ENTER** to exit.



## DISPLAY

Configure the on-screen display (OSD), monitor settings, Auto Sequence, and Spot Out.

### OSD

Use the OSD menu to customize the appearance of the on-screen display, as well as change the system language.



Figure 18.0 OSD menu

To configure OSD settings:

1. Select **OSD** and press **ENTER**.
2. Customize the following:
  - **STATUS BAR TIMEOUT**: Set the length of time for the Status Bar to remain on-screen (**5 sec**, **10 sec**, **15 sec**, **20 sec**, **30 sec**, **1 min**, or **ALWAYS**)
  - **CAMERA TITLE**: Select **ON/OFF** to show or hide the camera title
  - **RECORDING MODE ICON**: Select **ON/OFF** to show or hide the recording mode icons
  - **BORDER**: Select **ON/OFF** to show or hide channel borders
  - **BORDER COLOR**: Change the color of the channel borders; select **GRAY** (default), **WHITE**, **RED**, **GREEN**, **BLUE**, or **YELLOW**
  - **MOTION SENSOR DISPLAY**: Select **ON/OFF** to show or hide the motion sensor display

**NOTE:** Motion Sensor Display refers to the colored pixels that appear on-screen when motion is detected by one of the cameras.

  - **MOTION COLOR**: Change the color of the motion sensor display; select **BLUE** (default), **YELLOW**, **RED**, or **GREEN**

- **LANGUAGE**: Change the system language; select **ENGLISH** (default), **ITALIAN**, **SPANISH**, **THAILAND**, **JAPANESE**, **CHINESE(S)**, or **CHINESE(T)**

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

## MONITOR

Use the Monitor menu to configure dwell times and pop-up settings.



Figure 18.1 Monitor menu

To configure monitor settings:

1. Select **MONITOR** and press **ENTER**.
2. Customize the following:
  - **SEQUENCE DWELL**: Set the length of time (in seconds) for each channel to appear on-screen during Auto Sequence mode; select from **1 sec**, **2 sec**, **3 sec**, **5 sec** (default), **10 sec**, **15 sec**, **20 sec**, **30 sec**, **40 sec**, or **60 sec**
  - **SPOT DWELL**: Set the length of time (in seconds) for each channel to appear on-screen for the Spot Monitor (Spot Out); select from **1 sec**, **2 sec**, **3 sec**, **5 sec** (default), **10 sec**, **15 sec**, **20 sec**, **30 sec**, **40 sec**, or **60 sec**
  - **DE-INTERLACE MODE**: Select **ON/OFF** to enable or disable de-interlace mode

**NOTE:** When recording any channels in D1 resolution (704 x 576), this should be set to ON to prevent judder during playback.

  - **ALARM POP-UP MODE**: Select **ON/OFF** to enable/disable the associated alarm

channel to display on-screen when an alarm is triggered

- **ALARM POP-UP DWELL:** Set the time (in seconds) for the associated channel to remain on-screen when an alarm is triggered; select from **1 sec, 2 sec, 3 sec, 5 sec** (default), **10 sec, 15 sec, 20 sec, 30 sec, 40 sec**, or **60 sec**
- **MOTION POP-UP MODE:** Select **ON/OFF** to enable/disable the associated channel to appear in full-screen when motion is triggered
- **MOTION POP-UP DWELL:** Set the time (in seconds) for the associated channel to remain in full-screen when motion is triggered; select from **1 sec, 2 sec, 3 sec, 5 sec** (default), **10 sec, 15 sec, 20 sec, 30 sec, 40 sec**, or **60 sec**
- **CIF PLAYBACK SCALER:** Select **ON** or **OFF**.

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

## SEQUENCE

Use the Sequence menu to define a custom sequence, using mixed multi screen views and any desired channels.

### Adding a New Sequence

Create a new sequence for Auto Sequence mode.

**NOTE:** You can create up to 16 sequences.



Figure 18.2 Sequence menu

To add a new sequence:

1. Select **SEQUENCE** and press **ENTER**.

2. Select **ADD** and press **ENTER**. The Add window opens.



Figure 18.3 Add window

3. Select **SEQUENCE TITLE** and press **ENTER** to open the Virtual Keyboard and enter a name for the sequence. Select **OK** and press **ENTER**.
4. Select **SCHEDULE** and press **ENTER**; select **ON** to enable the new sequence.
5. Select **SAVE** and press **ENTER**. The Sequence window opens:



Figure 18.4 Sequence window (blank)

6. Select **ADD** and press **ENTER**. The Sequence Setup window opens

### Configuring a New Sequence

With the new sequence added, you can now set on-screen configurations and channels for the sequence.



Figure 18.5 Sequence Setup

To configure the new sequence:

1. Under **VIEW TYPE**, select a screen configuration (single channel, quad, 6-split, 8-split, 9-split, 16-split) and press **ENTER**.
2. Select **CONFIGURE** and press **ENTER**.
3. Select a square on the grid and press **ENTER**. Press the **▲▼** buttons to select a channel and press **ENTER** to assign the channel to the selected square on the grid.
4. Select **CONFIRM** and press **ENTER**. The customized configuration appears on the previously blank Sequence window.
5. Select **ADD** and press **ENTER**. Repeat steps 6~11 for additional screen configurations for your sequence.

**NOTE:** To edit an existing configuration, select the grid icon on the Add Sequence window and press **ENTER**.

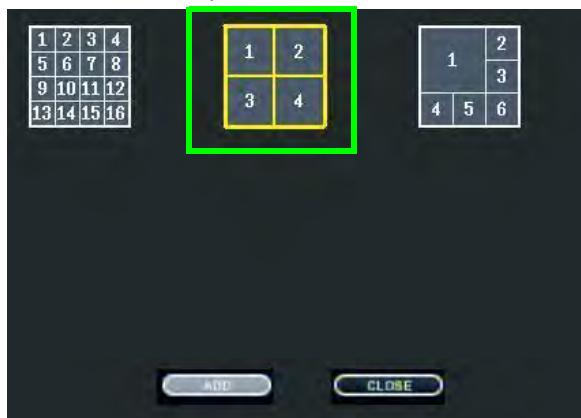


Figure 18.6 Double-click a grid icon to edit that configuration

6. Select **CLOSE** and press **ENTER** to exit.
7. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
8. From live viewing, press the **SEQ** button to start the new sequence.

### Selecting A Sequence

You can create up to 16 sequences but only one can be active. The sequence with a checkmark under "Activation" is the active sequence on the system.

To change sequences:

1. Under **LIST**, select a sequence and press **ENTER**. The **EDIT** window opens.



Figure 18.7 Edit an existing sequence

2. Under **SCHEDULE**, select **ON** and press **ENTER**.
3. Select **SAVE**. and press **ENTER**. The **EDIT** window closes.
4. Select **APPLY** and press **ENTER** to save your settings.

### Modifying an Existing Sequence

To modify or edit an existing sequence:

1. Under **LIST**, select a sequence and press **ENTER**. The **EDIT** window opens.
2. Select **MODIFY** and press **ENTER**. The **Add Sequence** window opens.
3. Select a grid icon and press **ENTER**. From the pop-up window, select **MODIFY** and press **ENTER** to edit the configuration in the Sequence Setup window.
4. Modify the the sequence using **VIEW TYPE** and **CONFIGURE** options.
5. Select **CONFIRM** and press **ENTER** to save your changes.
6. Select **CLOSE** and press **ENTER** to exit.
7. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.

### Deleting a Sequence

To delete a sequence:

1. Under **LIST**, select a sequence and press **ENTER**. The **EDIT** window opens.
2. Select **DELETE** and press **ENTER**. The **EDIT** window closes.
3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.

## SPOT OUT

Use the Spot Out menu to customize the spot outputs on the system. By default, the system assigns a 4-channel, full-screen sequence to each spot output: CH1~4, CH5~8, CH9~12, and CH13~16.



Figure 18.8 Spot Out menu

**NOTE:** You can set up to 16 sequence per spot channel.

To edit a spot-out sequence:

1. Select **SPOT OUT** and press **ENTER**.
2. Under LIST, select a Spot Out title and press **ENTER**. The Edit window opens.



Figure 18.9 Spot Out Edit window

3. Under SPOT TITLE, press **ENTER** to open the Virtual Keyboard and enter a name for the Spot Out sequence.
4. Under SCHEDULE, select **ON/OFF** to enable/disable the select Spot Out sequence and press **ENTER**.

5. Select **MODIFY** and press **ENTER**. The Sequence window opens.



Figure 18.10 Sequence window (spot out)

6. Select a sequence icon and press **ENTER**. From the pop-up menu, select **MODIFY** and press **ENTER** to edit the configuration. The Spot Sequence Setup window opens.

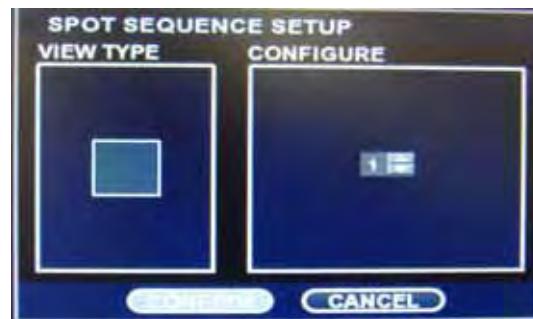
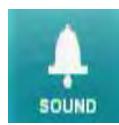


Figure 18.11 Spot Sequence Setup

7. Select **CONFIGURE** and press **ENTER**.
8. Select a square on the grid and press **ENTER**. Press the **▲▼** buttons to select a channel and press **ENTER** to assign the channel to the selected square on the grid.
9. Select **CONFIRM** and press **ENTER**. The customized configuration appears on the previously Sequence window.
10. To add a new sequence, select **ADD** and press **ENTER**. Repeat steps 7~10.
11. Select **CLOSE** and press **ENTER** to exit.
12. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.

### Modifying or deleting a Spot Out Sequence

- Right-click on a sequence icon, and click delete or modify.



## SOUND

Configure live audio, network audio, and buzzer settings.

**NOTE:** Audio-capable cameras or self-powered microphones (not included) must be connected to the system in order to use listen-in audio (live audio monitoring).

## AUDIO

Use the audio menu to configure live audio and network audio settings.



Figure 19.0 Audio Menu

To configure live audio settings:

1. Select **AUDIO** and press **ENTER**.
2. Under **LIVE AUDIO**, select **ON/OFF** to enable/disable listen-in audio on the system.
3. Under **DEFAULT AUDIO CHANNEL**, select **CH1, CH2, CH3, or CH4**.
4. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
5. Select **CLOSE** and press **ENTER** to exit.

To configure network audio settings:

1. Under **NETWORK AUDIO TRANSMISSION**, select **ON/OFF** to enable/disable the transmission of audio to a remote PC.

**NOTE:** Network audio will consume more bandwidth and may affect the transmission of the video signal. Enable or disable network audio based on your network settings.

2. Under **DIGITAL AUDIO RECEIVE**, select **ON/OFF** to enable/disable the reception of audio from a remote PC.
3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

## BUZZER

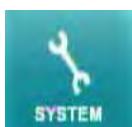
Use the Buzzer menu to control the "beep" from the system when you press a button on the remote control or front panel.



Figure 19.1 Buzzer Menu

To enable/disable the system buzzer:

1. Select **BUZZER** and press **ENTER**.
2. Under **KEYPAD**, select **ON/OFF**.
3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.



## SYSTEM

Configure date and time, system management settings, and control device options.

### DATE/TIME

Use the Date/Time menu to configure the date, time, and time format on the system.



Figure 20.0 Date/Time menu

To configure date/time settings:

1. Select **DATE / TIME** and press **ENTER**.
2. Configure the following:
  - **DATE TIME**: Select the year, month, day, hour, minutes, and seconds and adjust using the arrows
  - **NOTE**: For more details on setting the time on the system, see “Setting the Time” on page 17.
  - **DATE FORMAT**: Select **YYYY / MM / DD** (default), **DD / MM / YYYY**, or **MM / DD / YYYY**
  - **TIME FORMAT**: Select **24 HOUR** (default) or **12 HOUR**
  - **NETWORK TIME SERVER**: Click **SYNC.** to synchronize the system time with the network server.
  - **NOTE**: Network connection required. You can set the time on the system using the Network Time Server or through manual configuration. For more details, see “Setting the Time” on page 17.
  - **TIME ZONE SETUP**: Select various **GMT time zones**.

- **D.S.T.**: Select **ON/OFF** to enable/disable daylight savings time on the system

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

### SYSTEM MANAGEMENT

Use the System Management menu to view system information, edit the system name, upgrade firmware, and restore factory defaults.



Figure 20.1 System Management window

#### System Information

To view system information:

1. Select **SYSTEM MANGEMENT** and press **ENTER**.
2. Select **INFO** and press **ENTER**. The System Info window opens, containing the following:

SYSTEM INFORMATION	
S/W Version	12310.1.29.233
H/W Version	mnfs125B
Video Signal Type	NTSC
Disk Capacity	312 GB
IP Address	192.168.1.100
MAC Address	001160ff0073
DDNS Domain Name	SDN.DIGIMERGE.NET
Net Client Port	6400
Web Server Port	8080

Figure 20.2 System Information window

- **S/W Version**: The firmware version on the system
- **H/W Version**: The hardware version of the system

- **Video Signal Type:** NTSC or PAL, depending on your region
- **Disk Capacity:** The size (in gigabytes) of the internal HDD
- **IP Address:** The network address of your system
- **MAC address:** The physical address of your system on the network
- **DDNS Domain Name:** Your Digimerge DDNS domain

**NOTE:** Digimerge DDNS registration required. For details, see “Appendix C: Setting Up DDNS Service” on page 99.

- **Net Client Port:** The port number that the system uses to connect remotely via the client software
- **Web Server Port:** The port number that the system uses to connect to connect remotely via the Internet or web browsers

3. Select **CLOSE** and press **ENTER** to exit.

### System Name

To change the system name:

1. Select **SYSTEM NAME** and press **ENTER** to open the Virtual Keyboard.
2. Enter an alphanumeric name/title for your system (max. 15 characters), select **OK** and press **ENTER**.

**NOTE:** The system name will be the name/ID of the system on your network.

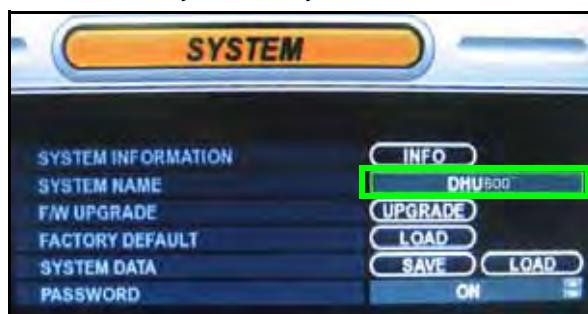


Figure 20.3 Edit the system name

### Upgrading Firmware

Firmware updates may be released periodically to enhance system performance and add extra features.



Figure 20.4 Firmware Upgrade window

To upgrade firmware:

1. Visit [www.digimerge.com](http://www.digimerge.com) and go to the product page for your system. Download the latest firmware update, if available.
2. Copy the firmware to a blank USB flash drive.
3. Connect the USB flash drive to one of the USB ports on the front panel of the system.
4. Open the **SYSTEM MANAGEMENT** menu. Under F/W UPGRADE, select **UPGRADE** and press **ENTER**. The Firmware Upgrade window opens.
5. Select the device and the firmware file; select **UPGRADE** and press **ENTER**.

Once the upgrade is complete, the system will reset.

### Factory Default

You can restore the system to the original factory settings.

**NOTE:** Restoring factory defaults will not delete recorded video data.

To restore factory defaults:

1. Under FACTORY DEFAULT, select **LOAD** and press **ENTER**.
2. From the prompt, select **OK** and press **ENTER**.

## System Data

You can save your system settings to a USB flash drive for backup.

To save system data:

1. Connect a USB flash drive to one of the USB ports on the front panel of the system.
2. Open the SYSTEM MANGEMENT menu. Under SYSTEM DATA, select **SAVE** and then press **ENTER**.

To load saved settings:

1. Connect a USB flash drive containing saved system settings to one of the USB ports on the front panel of the system.
2. Open the SYSTEM MANGEMENT menu. Under SYSTEM DATA, select **LOAD** and press **ENTER**.

## Password

Enable or disable the password prompt when opening system menus.

To enable/disable the password:

1. Under **PASSWORD**, select **ON/OFF** and press **ENTER**.
2. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
3. Select **CLOSE** and press **ENTER** to exit.

## CONTROL DEVICE

Use the Control Device menu to allow up to 254 DVRs to be controlled from the same keyboard.

**NOTE:** Please refer to your instruction manual of your device to determine the correct settings.



Figure 20.5 Control Device menu

To configure control devices:

1. Select **CONTROL DEVICE** and press **ENTER**.
2. Under **SYSTEM ID**, select from **1~255**.  
**NOTE:** If more than one DVR is connected on the same RS485 bus, each one must have a unique ID.
3. Under **PROTOCOL**, select **D-MAX** (default), **ICK-3000**, **MESA-KB**, **SIEMENS**, or **GANZ**.  
**NOTE:** The Protocol must match the control device.
4. Under **BAUD RATE**, select **19200** (default), **9600**, **4800**, **24000**, **115200**, **57600**, or **38400**.
5. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
6. Select **CLOSE** and press **ENTER** to exit.



## USER

Configure user authorities and logout options.

### USER MANAGEMENT

Use the User Management menu to create new user IDs, edit passwords, and set email notifications.



Figure 21.0 User Management menu

**NOTE:** By default, the system is configured with a user ID of ADMIN, belonging to the group ADMIN and with a password of 1234.

To add a new user ID:

1. Select **USER MANAGEMENT** and press **ENTER**.
1. Select **ADD** and press **ENTER**. The Add window opens.

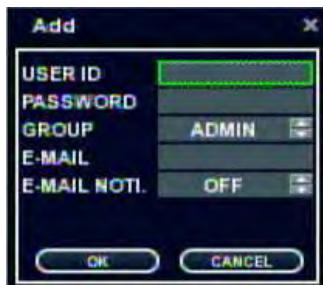


Figure 21.1 Add user

2. Select **USER ID** and press **ENTER** to open the Virtual Keyboard and enter a name/title for the new user.
3. Select **PASSWORD** and press **ENTER** to open the Virtual Keyboard and enter a password for the new user.

**NOTE:** Password must be at least 4 characters long.

4. Under GROUP, select **ADMIN**, **MANAGER**, or **USER**.
5. Select **E-MAIL** and press **ENTER** to open the Virtual Keyboard; enter the user's email address so they can receive email notifications of events on the system (max. 64 characters).
6. Under **E-MAIL NOTI.** select **ON/OFF** to enable or disable -mail notifications for the new user.
7. Click **OK** to save your settings.
8. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
9. Select **CLOSE** and press **ENTER** to exit.

**NOTE:** You can create a maximum of eight users.

To edit an existing user:

1. Under **USER ID**, select a user name and press **ENTER**. The Edit window opens.



Figure 21.2 Edit user

**NOTE:** You can also open the Edit window by double-clicking the E-MAIL field in the User Management menu.

2. Select **PASSWORD** and press **ENTER** to edit the password for the current user.
- NOTE:** Password must be at least 4 characters long; password is case sensitive.
3. Select **E-MAIL** and press **ENTER** to open the Virtual Keyboard and edit the email address of the current user (max. 64 characters).
4. Select **E-MAIL NOTI.** and select **ON/OFF** to enable or disable -mail notifications for the current user.

5. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
6. Select **CLOSE** and press **ENTER** to exit.

## USER AUTHORITY

Use the User Authority menu to assign authorities/access to the "Manager" and "User" groups.



Figure 21.3 User Authority menu

**NOTE:** Only the ADMIN (administrator) has access to the User Management/User Authority menus.

To configure user authorities:

1. Select **USER AUTHORITY** and press **ENTER**.
2. Under MANAGER and USER, select/deselect the boxes for **SETUP**, **PTZ**, **SEARCH**, **ARCHIVING**, and **REMOTE AGENT**. Selecting the boxes will grant the Manager/User access to these functions.
3. Click **APPLY** to save your settings or click **CANCEL** to restore defaults.
4. Click **CLOSE** to exit.

## LOG OUT

Use the Log Out menu to set Auto Logout and Duration times.



Figure 21.4 Auto Logout menu

To configure Auto Logout:

1. Select **LOG OUT** and press **ENTER**.
2. Under AUTO LOGOUT select **ON/OFF** to enable/disable Auto Logout. If ON, the system will automatically log off the active user after a certain length of time.
3. Under DURATION, set the length of time for the system to automatically log off the current user; select **1 MIN** (default), **2 MIN**, **3 MIN**, **5 MIN**, or **10 MIN**.
4. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
5. Select **CLOSE** and press **ENTER** to exit.



## NETWORK

Configure IP, DDNS, and email settings.

### IP SETUP

Use the IP Setup menu to enable DHCP and edit IP settings.

**NOTE:** Some networking/IP knowledge is highly recommended when configuring the IP setup menu.

To configure IP options:

- Select **IP SETUP** and press **ENTER**.



Figure 22.0 IP Setup menu

### DHCP

DHCP allows the system to retrieve an IP address automatically from a DHCP server or router.

To enable DHCP:

1. Select the box next to **DHCP** and press **ENTER**.
2. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.

**NOTE:** Once you click "Apply," the system will retrieve network information from the router/server.

3. Select **CLOSE** and press **ENTER** to exit.

If you want to set a Static IP, you should deselect DHCP and enter your IP settings manually.

### Web Service

Web Service allows you to connect to the

system remotely via Internet Explorer.

To enable Web Service:

1. Select the box next to **WEB SERVICE** and press **ENTER**.
2. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
3. Select **CLOSE** and press **ENTER** to exit.

### IP Settings

If you enable DHCP, IP settings will be filled in automatically: IP address, Gateway, Subnet Mask, 1st DNS Server, and 2nd DNS Server. Disable DHCP to edit IP settings manually (set a static IP).



Figure 22.1 IP Setup menu

### Ports

By default, the system uses a RTSP Service port (554) and a web server port (80) for remote connections.

**NOTE:** Auto port forwarding will work on most UPNP enabled routers.

To edit ports:

1. Configure the following:
  - **RTSP SERVICE PORT:** The system uses the net client port (by default,554) to connect to the remote client software; press **ENTER** to open the Virtual Keyboard and change the port number or select **AUTOPORT** and press **ENTER** to autoport forward.
  - **WEB SERVER PORT:** The system uses the web server port (by default, 80) to connect via Internet Explorer; press **ENTER** to open the Virtual Keyboard and change the port

number or select **AUTOPORT** and press **ENTER** to autoport forward.

2. Select **PORT TEST** and press **ENTER** to verify the connection via the client and web ports.

**NOTE:** If you receive a failure warning, please check your network connections and ensure that you have port forwarded the net client and web ports on your router.

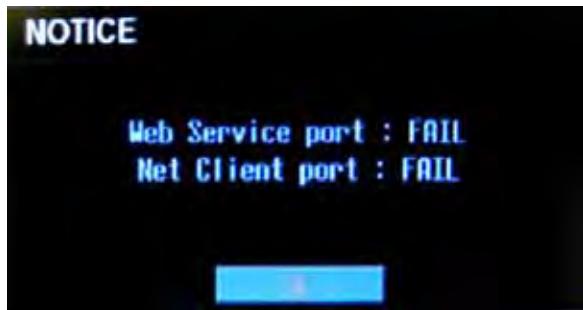


Figure 22.2 Port Test Failure

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

### Enabling Auto Port Forwarding

This DVR is capable of auto port forwarding. Set up DDNS prior to auto port forwarding.

To enable auto port forwarding:

1. Click on the **SETUP** menu.
2. Click on **SYSTEM SETUP**.
3. Under **SYSTEM SETUP**, select **NETWORK**.
4. On **RTSP SERVER PORT**, click on **AUTOPORT**. Wait for a **SUCCESS** message.
5. On **WEB SERVER PORT**, click on **AUTOPORT**. Wait for a **SUCCESS** message.
6. Press **APPLY** to save your changes.
7. Under ALIAS make sure the DDNS link appears (for example <http://tomsmith.digimerge.net>)

**NOTE:** Auto port forwarding requires a UPNP enabled router.

**NOTE:** If the Web Server Port is taken, you may have to assign the Web Server port a port between 80-1024.

**NOTE:** If the RTSP SERVICE PORT is taken, you may have to assign the RTSP SERVICE PORT with a port between 554-1024

### Transmission Speed

Set the maximum bandwidth that the system can use during remote connections.

To set the transmission speed:

1. Under **BANDWIDTH**, select **8192 KBYTE** (default), **4096 KBYTE**, **2048 KBYTE**, **1024 KBYTE**, **512 KBYTE**, **256 KBYTE**, **128 KBYTE**, or **56 KBYTE** and press **ENTER**.
2. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
3. Select **CLOSE** and press **ENTER** to exit.

### DDNS

Digimerge provides a free DDNS service for use with your DVR. A DDNS account allows you to set up a web site address that points back to your local network.

**ATTENTION:** You must enter your DDNS information locally before attempting remote access.

Visit <http://ddns.digimerge.net> to register for Digimerge's free DDNS service. For more details on setting up a free Digimerge DDNS account, see "Appendix C: Setting Up DDNS Service" on page 99.



Figure 22.3 DDNS menu

To configure DDNS settings:

1. Select **DDNS** and press **ENTER**.
2. Under DDNS, select **ON/OFF** and to enable/disable Digimerge DDNS.
3. Under DDNS SERVER, select **DDNS.DIGIMERGE.NET** (default).
4. Under USER ID, enter your **DDNS user name**.
5. Under DOMAIN NAME, enter only the **first portion of your DDNS domain** from the confirmation email. For example, if your domain name is tomsmith.digimerge.net, you only need to enter **tomsmith** in the text field.
6. Under PASSWORD, enter your **DDNS password**.
7. Select **STATUS** and press **ENTER** to verify the DDNS connection.

**NOTE:** If you receive a Failure warning, please check your network connections and ensure you have entered the correct DDNS information.

8. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
9. Select **CLOSE** and press **ENTER** to exit.

## E-MAIL

Use the Email menu to configure email server settings.



Figure 22.4 E-Mail menu

To configure email settings:

1. Select **E-MAIL** and press **ENTER**.

2. Select **SERVER**, press **ENTER** to open the Virtual Keyboard and enter your email server address.
3. Select **PORT** (by default, 25) and press **ENTER** to open the Virtual Keyboard and enter the port number.  
**NOTE:** If you change the default port number, you need to port forward the new port number on your router.
4. Select **SECURITY** and select **OFF** (default) if the email server does not require a user name and password to connect—go to step 6; if authentication is required, select **ON** and go to step 4.
5. Select **USER** and press **ENTER** to open the Virtual Keyboard and enter the user name for the email server.
6. Select **PASSWORD** and press **ENTER** to open the Virtual Keyboard and enter the password for the email server.
7. Select **FROM** and press **ENTER** to open the Virtual Keyboard and enter the sender email address.
8. Select **TEST E-MAIL** and press **ENTER** to open the Virtual Keyboard and enter a test email address.
9. Select **TEST** and press **ENTER** to send a test email to the Test Email address.
10. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
11. Select **CLOSE** and press **ENTER** to exit.



## EVENT/SENSOR

Configure HDD events, alarm input/output, buzzer, and email notifications.

### HDD EVENT

Use the HDD Event menu to allow the system to monitor the internal hard disk.

**NOTE:** If more than one HDD is installed the system, the system will treat the hard drives as one HDD.



Figure 23.0 HDD Event menu

To set HDD event alarms:

1. Select **HDD EVENT** and press **ENTER**.
2. Under SMART ALARM, select **ON/OFF**. If ON, an alarm will sound if the system detects errors with the internal HDD.
3. Under CHECK INTERVAL, select **1 HOUR** (default), **~ 24 HOUR**. This sets the frequency that the system will check the internal HDD for errors.
4. Under DISK FULL EVENT, select **ON/OFF**. If ON, the system will sound an alarm when the internal HDD is full.
5. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
6. Select **CLOSE** and press **ENTER** to exit.

## ALARM INPUT

Use the Alarm Input menu to configure external alarm devices (i.e. a door or window sensor).



Figure 23.1 Alarm Input menu

**NOTE:** Make sure you have properly connected an external alarm device to the alarm block on the rear panel of the system prior to configure alarm settings. For more details, see "Appendix F: Connecting Motion / Alarm Devices" on page 105.

To configure alarm inputs:

1. Select **ALARM INPUT** and press **ENTER**.
2. Under OPERATION, select **ENABLE** or **DISABLE**.
3. Under TYPE, select **N / O** (normally open) or **N / C** (normally closed), depending on the status of your external alarm device.
4. OPTIONAL: Under TEXT, select a channel and press **ENTER** to open the Virtual Keyboard and enter a name for the Alarm.
5. Repeats **steps 2~4** for remaining channels.
6. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
7. Select **CLOSE** and press **ENTER** to exit.

## ALARM OUTPUT

Use the Alarm Output menu to configure behavior and action settings for an external alarm output device, such as a siren or light.



Figure 23.2 Alarm Output menu

### Behavior Settings

To configure behavior settings:

1. Select **ALARM OUTPUT** and press **ENTER**.
2. Under ALARM OUT, select a channel for alarm output.
3. Under OPERATION, select **ENABLE** or **DISABLE**.
4. Under MODE, select **TRANSPARENT** or **LATCHED**.
5. Under DURATION, select **5 SEC** (default), **10 SEC**, **15 SEC**, **20 SEC**, **30 SEC**, **40 SEC**, **60 SEC**, **120 SEC**, **180 SEC**, **300 SEC**, or **Until Key** (until a key is pressed on the system).
6. Under TYPE, select **N/O** or **N/C**.

**NOTE:** You must select **ENABLE** in order to configure action settings.

**NOTE:** "Transparent" indicates the output is active only when the trigger criteria is present. "Latched" indicates the output is active for a set period of time after a trigger.

**NOTE:** In Latched mode, "Duration" refers to the time that the alarm output remains active after it has been triggered.

7. Under HDD EVENT, select **ON/OFF**. If ON, an HDD event will trigger an alarm output.

### Action Settings

Set event triggers for each channel.

To configure action settings:

1. Set the following:
  - **ALARM**: Select the box to enable the alarm output when an alarm input is triggered
  - **VIDEO LOSS**: Select the box to enable the alarm output when video loss occurs on the system
  - **MOTION**: Select the box to enable the alarm output when motion is detected on the system
2. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
3. Select **CLOSE** and press **ENTER** to exit.

## BUZZER OUT

Use the Buzzer Out menu to configure behavior and actions for the system alarm.



Figure 23.3 Buzzer Out menu

### Behavior Settings

To configure behavior settings:

1. Select **BUZZER OUT** and press **ENTER**.
2. Under OPERATION, select **ENABLE** or **DISABLE**.
3. Under HDD EVENT, select **ON/OFF**. If ON, an HDD event will trigger an alarm output.

**NOTE:** You must select **ENABLE** in order to configure action settings.

- Under MODE, select **TRANSPARENT** or **LATCHED**.

**NOTE:** "Transparent" indicates the output is active only when the trigger criteria is present. "Latched" indicates the output is active for a set period of time after a trigger.

- Under DURATION, select **5 SEC** (default), **10 SEC**, **15 SEC**, **20 SEC**, **30 SEC**, **40 SEC**, **60 SEC**, **120 SEC**, **180 SEC**, **300 SEC**, or **Until Key** (until a key is pressed on the system).

**NOTE:** In Latched mode, "Duration" refers to the time that the alarm output remains active after it has been triggered.

### Action Settings

Set event triggers for each channel.

To configure action settings:

- Set the following:
  - ALARM:** Select the box to enable the alarm output when an alarm input is triggered
  - VIDEO LOSS:** Select the box to enable the alarm output when video loss occurs on the system
  - MOTION:** Select the box to enable the alarm output when motion is detected on the system
- Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
- Select **CLOSE** and press **ENTER** to exit.

## E-MAIL NOTIFICATION

Use the Email Notification menu to configure behavior and action settings for email notifications to remote users.



Figure 23.4 E-Mail Notification menu

### Behavior Settings

To configure behavior settings:

- Select **E-MAIL NOTIFICATION** and press **ENTER**.
- Under **NOTIFICATION**, select **ON/OFF**. If ON, the system will send an email notification to selected users.
- NOTE:** You must select **ON** in order to configure action settings.
- Under **SETUP CHANGE**, select **ON/OFF**. If ON, the system will send an email notification when changes are made to the system settings.
- Under **HDD EVENT**, select **ON/OFF**. If ON, the system will send an email notification when an event occurs on the internal HDD.
- Under **BOOTING EVENT**, select **ON/OFF**. If ON, the system sends an email notification when the system is powered on/off.

### Action Settings

Set event triggers for each channel.

To configure action settings:

- Set the following:
  - ALARM:** Select the box to enable the alarm output when an alarm input is triggered
  - VIDEO LOSS:** Select the box to enable the alarm output when video loss occurs on the system

- **MOTION:** Select the box to enable the alarm output when motion is detected on the system
- 2. Under FREQUENCY, select **0 MIN, 1 MIN, 5 MIN** (default), **10 MIN, 15 MIN, 30 MIN**, or **60 MIN**.

**NOTE:** Frequency sets the time interval that the system will send email notifications.

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.



## DISK MANAGE

Configure settings for the internal hard drive(s).



Figure 25.0 Disk management menu

To configure HDD settings:

1. Select **DISK MANAGEMENT** and press **ENTER**.
2. Under RECORD TIME LIMIT, select **12 HOUR, 1 DAY, 2 DAY, 3 DAY, 1 WEEK, 1 MONTH** or **OFF**.

**NOTE:** Record Time Limit refers to the length of time data will be kept on the HDD. For example: if the Record Time Limit is set for 1 week, the system records data from the 1st of the month through the 7th of the month. On the 8th of the month, it will begin overwriting data (hour by hour) that occurred on the 1st of the month. On the 9th of the month, it will begin overwriting data that occurred on the 2nd of the month.

**ATTENTION:** The OVERWRITE feature must be ON for the Record Time Limit feature to function.

3. Under OVERWRITE, select **ON/OFF**. If ON, the system will overwrite the earliest recorded video data once the HDD(s) is full.
4. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
5. Select **CLOSE** and press **ENTER** to exit.

## FORMATTING THE HDD

It may be necessary to format the hard disk(s), such as when installing a new HDD(s).

**ATTENTION:** Formatting erases ALL video data on the HDD. This step cannot be undone.

To format the HDD:

1. Open the **DISK MANAGEMENT** menu.
2. Under FORMAT, select **START** and press **ENTER**.
3. Log in with your **administrator user name** and **password** (by default, user name: **ADMIN**; password: **1234**).
4. From the Warning prompt, select **OK** and press **ENTER**.

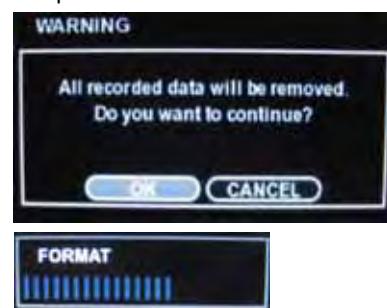


Figure 25.1 Click OK to begin formatting

**NOTE:** Please allow a few moments for formatting to complete. This may take several moments depending on the size of the hard drive.

5. Select **APPLY** and press **ENTER** to save your settings.
6. Select **CLOSE** and press **ENTER** to exit.

# USING THE RECORDING MENU

Use the Recording Menu (Record Setup) to set recording modes and configure recording schedules on the system.

To open the Record Menu

1. Press the **SETUP** button. The Status Bar opens
2. Select **MENU** and press **ENTER**. The Setup window opens.



Figure 26.0 Select RECORD SETUP

3. From the Setup window, select **RECORD SETUP** and press **ENTER**. If necessary, login using your **ADMIN password** (by default, 1234).



Figure 26.1 Recording Menu

## RECORDING OPERATIONS

Use the Recording Operations menu to set the recording schedule frequency and set pre- and post recording times.



Figure 27.0 Recording Operations menu

To configure recording operations:

1. Select **RECORDING OPERATIONS** and press **ENTER**.
2. Configure the following:
  - **SCHEDULE MODE**: Select **DAILY** (default) or **WEEKLY**
  - **PRE-EVENT RECORDING TIME**: Select from **0 SEC ~ 5 SEC** (default)

**NOTE:** Pre Event Recording is the length of time that the system will record before a triggered event (retrieved from video cache).

- **POST EVENT RECORDING**: Select from **5 SEC** (default), **10 SEC**, **15 SEC**, **120 SEC**, or **180 SEC**

**NOTE:** Post Event Recording is the length of time that the system will record after a triggered event.

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

## CONTINUOUS / MOTION RECORDING

Use the Continuous/Motion Recording menu to configure recording parameters for each camera, and apply continuous, motion, or continuous + motion recording to a schedule.



Figure 28.0 Continuous/Motion Recording menu

## RECORDING PARAMETERS

Parameters for each camera are set by hour using the Time Interval bar at the top of the window.

To set recording parameters for each channel:

1. Select **CONTINUOUS/MOTION RECORDING** and press **ENTER**.
2. Select **SIZE/FPS/QUALITY** and press **ENTER**. The Time Interval bar is highlighted in green (see figure 28.0).
3. With the Time Interval Bar highlighted, press **ENTER**.
4. Press the **◀▶** buttons to select a time block from **0~24 hours** and press **ENTER**. For an individual block press **ENTER** again, or first press the **◀▶** buttons to select

multiple blocks and then press **ENTER**. The Camera Parameters window opens.

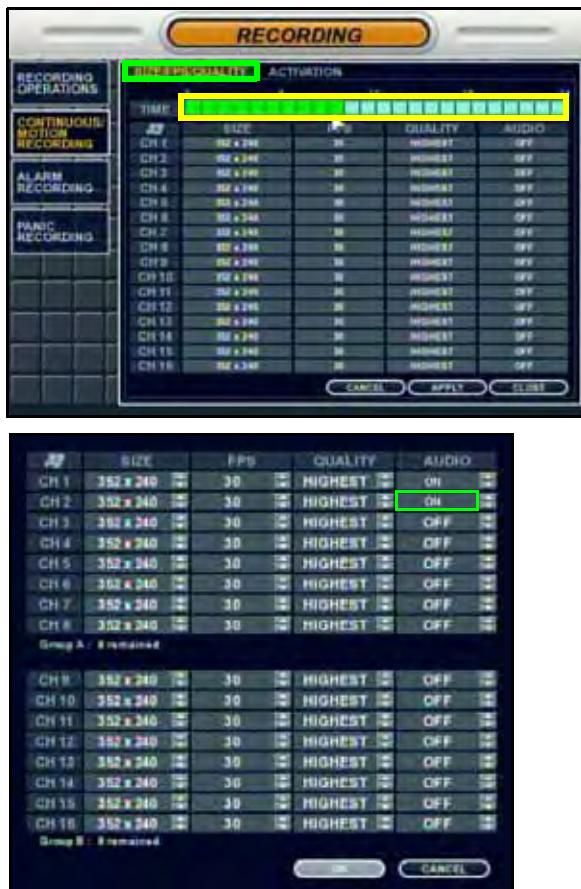


Figure 28.1 Select a time block(s) and configure camera parameters

- From the Parameter window, select and configure the following options for each channel of the selected time block:
  - SIZE:** Select from **352x240** (default), **704x240**, or **704x480**
  - FPS:** Select from **1, 2, 3, 7, 15**, or **30** (default) frames-per-second (real-time recording) from a shared pool of 240 FPS

**NOTE:** If the number of frames remaining in the shared pool is a negative number you will receive an error message. You will need to adjust Size and FPS parameters to ensure a positive number of frames remains in the shared FPS pool.

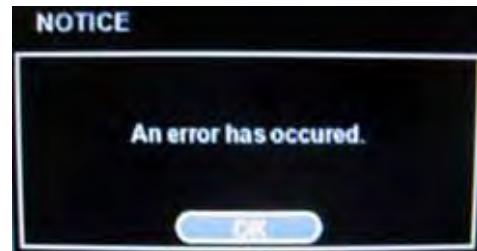


Figure 28.2 Error message due to negative frames remaining in the shared FPS pool

- QUALITY:** Select from **LOW**, **STANDARD**, **HIGH**, or **HIGHEST** (default)
- AUDIO:** Select **ON/OFF** for the desired channel(s)

**NOTE:** The system can record a maximum of four audio channels.

- Select **OK** and press **ENTER** to save your settings. The Camera Parameters window closes and the configured time block(s) change color.

**NOTE:** Color in the Time Interval Bar simply indicates that recording parameters have been changed for the selected time block. Colors are assigned randomly if you make changes for different time blocks.



Figure 28.3 Changed time blocks

- Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
- Select **CLOSE** and press **ENTER** to exit.

## Recording Schedule Activation

Activate Continuous, Motion, or Continuous + Motion recording to selected channels according to the Time Interval Bar at the top of the window.

To configure recording modes and set a recording schedule:

1. Select **CONTINUOUS/MOTION RECORDING** and press **ENTER**.
2. Select **ACTIVATION** and press **ENTER**. The channel grid is highlighted in green.



Figure 28.4 Recording Modes/Schedule activation

**NOTE:** Any time blocks you have changed/configured in the Camera Parameters menu will appear in the Time Interval bar at the top of the window.

3. With the channel grid highlighted, press **ENTER**.
  - a. Press the **◀▶** buttons to select a time block from **0~24 hours** for a desired channel and press **ENTER**.
  - b. For an individual block press **ENTER** again, or first press the **◀▶▲▼** buttons to select multiple blocks across multiple channels and then press **ENTER**. The Event window opens.

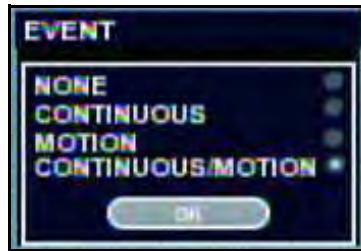


Figure 28.5 Apply a recording mode to the selected time blocks

4. From the Event window, select **CONTINUOUS, MOTION, CONTINUOUS/MOTION** or **NONE**.

**NOTE:** If you select **NONE**, the system **WILL NOT** record during the selected time block(s). Please use caution if applying **NONE** to your recording schedule.

5. Select **OK** and press **ENTER**. The Event window closes and the selected time blocks change color depending on the selected modes (see figure 28.6).



Figure 28.6 Multiple blocks set for Continuous+Motion

**NOTE:** In figure 28.6, all the time blocks are orange because Continuous+Motion recording was applied to all time blocks.

- █ **NONE** (red): The system DOES NOT record.
- █ **CONT** (Continuous; sky blue): The system records continuously (default).
- █ **MOTION** (Motion; purple): The system only records when motion is detected from one of the connected cameras.
- █ **CONT/MOT** (Continuous+Motion; orange): The system records continuously, and records when motion is detected.

Figure 28.7 Color codes for Recording Modes

6. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
7. Select **CLOSE** and press **ENTER** to exit.

## ALARM RECORDING

Use the Alarm Recording menu to set camera parameters and recording modes for alarm events/triggers.



Figure 29.0 Alarm Recording menu

### Alarm Recording Parameters

Alarm recording parameters for each camera are set by hour using the Time Interval bar at the top of the window.



Figure 29.1 Select a time block(s) and set camera parameters

To set alarm recording parameters for each channel:

1. Select **ALARM RECORDING** and press **ENTER**.
2. Select **SIZE/FPS/QUALITY** and press **ENTER**. The Time Interval bar is highlighted in green (see figure 29.0).
3. With the Time Interval Bar highlighted, press **ENTER**.
  - a. Press the **◀▶** buttons to select a time block from **0~24 hours** and press **ENTER**.
  - b. For an individual block press **ENTER** again, or first press the **◀▶** buttons to select multiple blocks and then press **ENTER**. The Camera Parameters window opens.
3. From the Parameter window, select and configure the following options for each channel of the selected time block:
  - **SIZE:** Select from **352x240** (default), **704x240**, or **704x480**

- **FPS:** Select from **1, 2, 3, 7, 15, or 30** (default) frames-per-second (real-time recording) from a shared pool of 240 FPS
- **QUALITY:** Select from **LOW, STANDARD, HIGH, HIGHEST or SUPER**
- **AUDIO:** Select **ON/OFF** for the desired channel(s)

**NOTE:** The system can record a maximum of four audio channels.

4. Select **OK** and press **ENTER** to save your settings. The Camera Parameters window closes and the configured time block appears light green.



Figure 29.2 Changed time blocks

5. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
6. Select **CLOSE** and press **ENTER** to exit.

### Alarm Schedule Activation

Set Alarm recording for a selected channel(s) according to the Time Interval Bar at the top of the window.



Figure 29.3 Alarm Schedule Activation

To set an activate alarm recording:

1. Select **ALARM RECORDING** and press **ENTER**.
2. Select **ACTIVATION** and press **ENTER**. The channel grid is highlighted in green (see figure 29.3).
3. With the channel grid highlighted, press **ENTER**.
  - a. Press the **◀▶** buttons to select a time block from **0~24 hours** for a desired channel and press **ENTER**.



Figure 29.4 Multiple blocks selected for Alarm recording

- b. For an individual block press **ENTER** again, or first press the **◀▶▲▼** buttons to select multiple blocks across multiple channels and then press **ENTER**.



Figure 29.5 Alarm recording schedule activated

**NOTE:** The selected blocks appear light green to indicate alarm recording has now been activated.

3. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
4. Select **CLOSE** and press **ENTER** to exit.

## Panic Recording

Use the Panic Recording menu to set camera parameters for each channel during panic recording.



Figure 30.0 Panic Recording menu

**NOTE:** By default, the system is set to record at the highest quality recording parameters during Panic Recording.

To set panic recording parameters:

1. Select **PANIC RECORDING** and press **ENTER** twice. The Camera Parameters window opens.

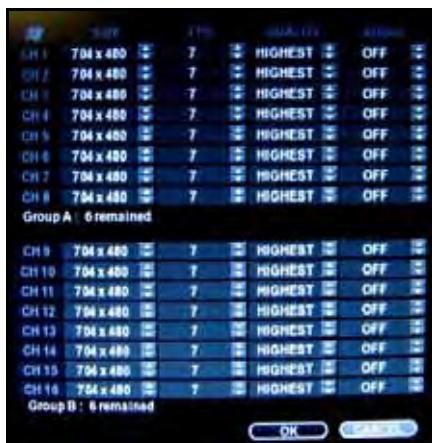


Figure 30.1 Panic Recording menu

2. From the Camera Parameters window, configure the following:
  - **SIZE:** Select from **352x240**, **704x240**, or **704x480** (default)
  - **FPS:** Select from **1**, **2**, **3**, **7** (default), **15**, or **30** frames-per-second (real-time recording) from a shared pool of 240 FPS
  - **QUALITY:** Select from **LOW**, **STANDARD**, **HIGH**, **HIGHEST** or **SUPER**
  - **AUDIO:** Select **ON/OFF** for the desired channel(s)

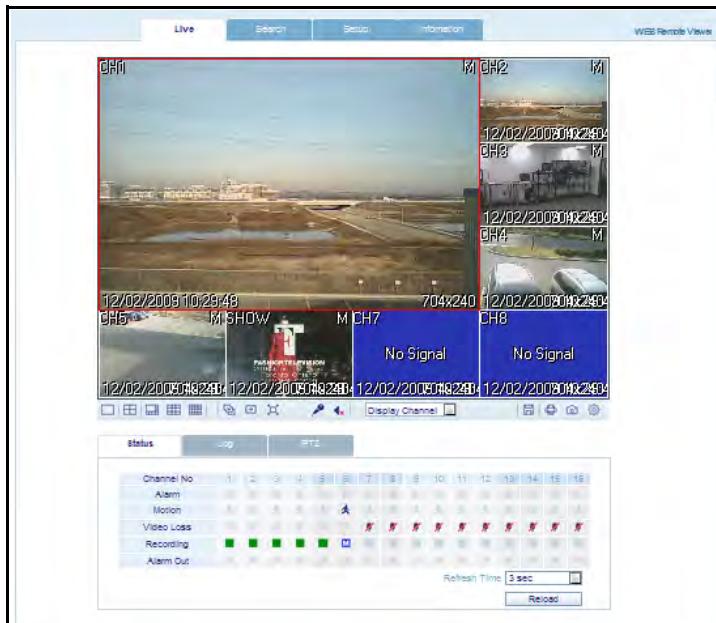
**NOTE:** The system can record a maximum of four audio channels simultaneously.

3. Select **OK** and press **ENTER** to save your settings. The Camera Parameters window closes.
4. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
5. Select **CLOSE** and press **ENTER** to exit.



# WEB REMOTE VIEWER

Web Remote Viewer is a remote surveillance software built into your DVR that allows for live viewing and playback. Web Remote Viewer does not need additional software to be installed on your system. Everything is accessed remotely.



## System Requirements

Before using Web Remote Viewer, ensure your system meets or exceeds the following system requirements:

Description	Requirement
<b>CPU</b>	2.4 GHz Pentium® 4 or above
<b>Operating System</b>	Windows XP/Vista/7 Mac OSX 10.4 or greater
<b>Browser</b>	Internet Explorer 7 or greater/ Safari
<b>Memory</b>	1 GB RAM (more than 1 GB recommended)
<b>Video</b>	16 MB of video memory
<b>HDD</b>	2 GB of free space
<b>Network (LAN)</b>	10/100 Base-T Network
<b>Network (WAN)</b>	384 Kbps upstream. High speed internet connection required for live video/audio streaming.

# USING WEB REMOTE VIEWER

To access Web Remote Viewer, you must be connected to the internet, or the Local Area Network.

## Before You Begin

You must register for a DDNS address, and enable DDNS on your DVR before you can access your system remotely. By registering for a DDNS address, you can access your system from any computer with a web browser.

### Register for DDNS

To register for a Digimerge DDNS account see “Appendix C: Setting Up DDNS Service” on page 99.

### Enable DDNS on your system

To enable DDNS on your system, see “How Do I Enable DDNS On My System?” on page 100.

### Logging into Web Remote Viewer

To log into Web Remote Viewer on your web browser:

1. Open Internet Explorer, and type in the DDNS address you registered with the DHU600. A login window appears.
2. **Enter in your DVR's user ID and password.** The Web Remote Viewer window opens.



Figure 31.0 Web Remote Viewer window prompting for an Active X install.

3. Click the Active X menu bar near the top of the browser. Click **Install ActiveX Control.**



Figure 31.1 Click Install ActiveX Control to install ActiveX onto your browser.

4. Click **Install** when the security window opens.



Figure 31.2 Internet Explorer Security Warning window. Click **Install** to continue.

5. Click the ActiveX toolbar when the main Web Remote Viewer window opens. Click **Install ActiveX Control**.

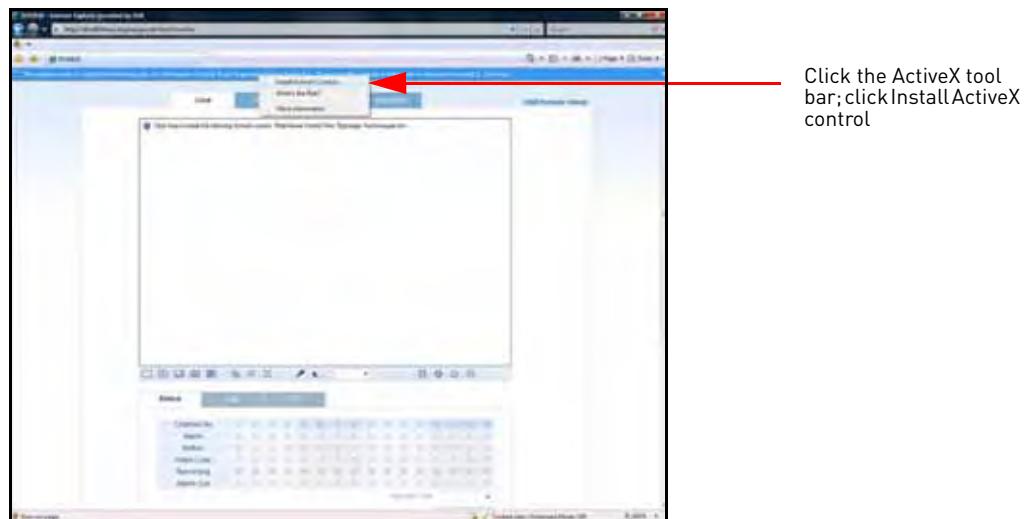


Figure 31.3 An ActiveX tool bar opens again upon initial log in. Install ActiveX to continue.

6. Click **Install** when the security window opens.

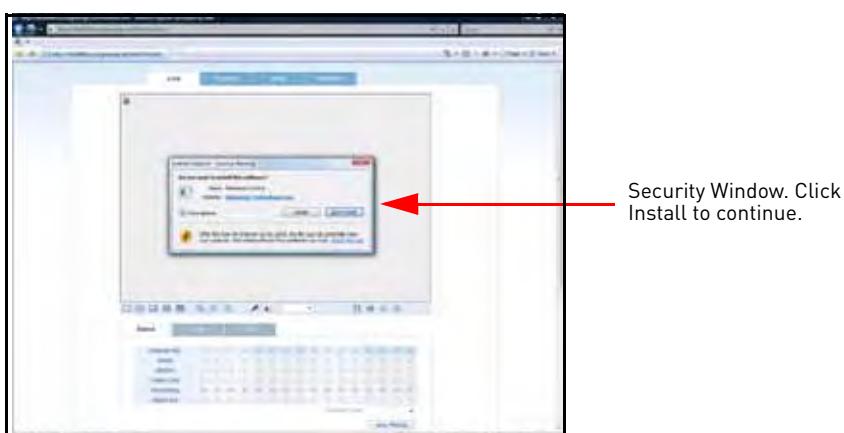


Figure 31.4 Security Warning window.

- The Web Remote Viewer automatically detects and connects to your DVR after the ActiveX plug in installs.

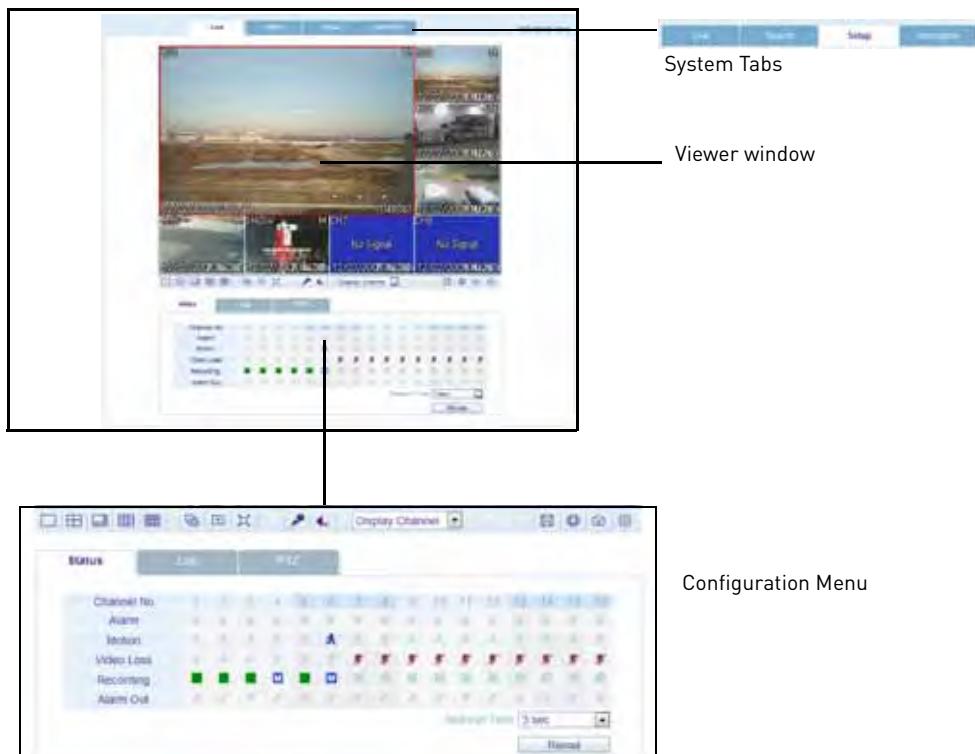


Figure 31.5 Web Remote Viewer basic layout.

## ***The System Tabs***

The System tabs near the top of the screen has four tabs: Live, Search, Setup, Information. Click the tab to access its features.



Figure 31.6 System Tabs.

- **Live** tab: View live, streaming video from your DVR
- **Search** tab: Search recorded events from your DVR
- **Setup** tab: Configure camera, recording, and Web Remote Viewer settings
- **Information** tab: Displays Web Remote Viewer version

## Using The Navigation Bar

The Navigation Bar allows you to view videos in several split screen modes, save videos, take snapshots of video, and print images of video.

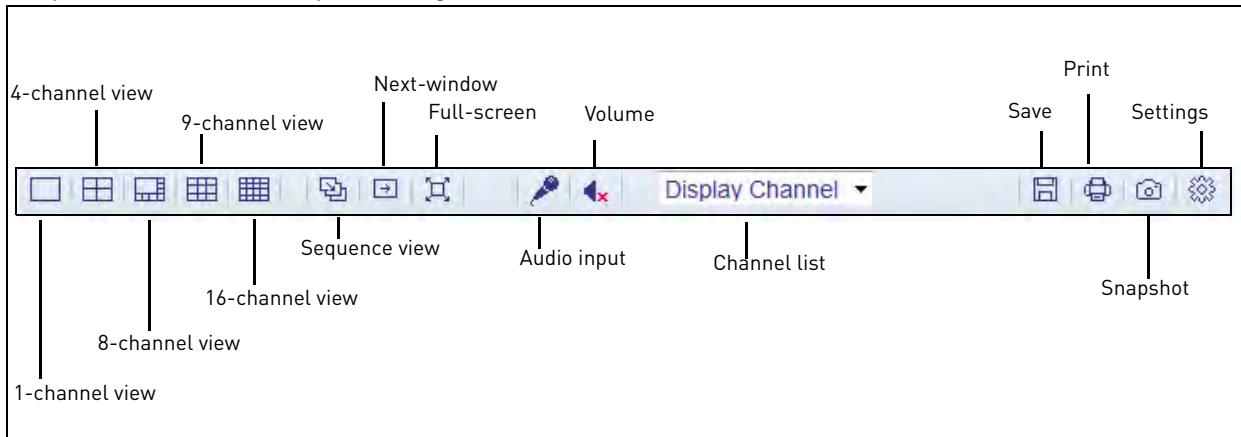


Figure 32.0 Navigation Bar.

### *Viewing Modes*

- **1-channel view:** Displays one channel of video.
- **4-channel view:** Displays four channels of video
- **8-channel view:** Displays one main channel, with seven smaller channels
- **9-channel view:** Displays nine-channels in a grid
- **16-channel view:** Displays sixteen-channels in a grid
- **Sequence view:** View channels in a sequence
- **Next-window:** View next channel of video
- **Full-screen:** View video in full screen

### *Audio Modes*

- **Audio input:** Toggle on/off incoming audio
- **Volume:** Mute/Unmute volume

### *Basic Settings*

- **Save:** Saves streaming video onto your computer.
- **Print:** Print the current screenshot of the channel
- **Settings:** Configure video, audio, and save directory settings

## The Live Tab

The Live tab allows you to view live, streaming video from your DVR.

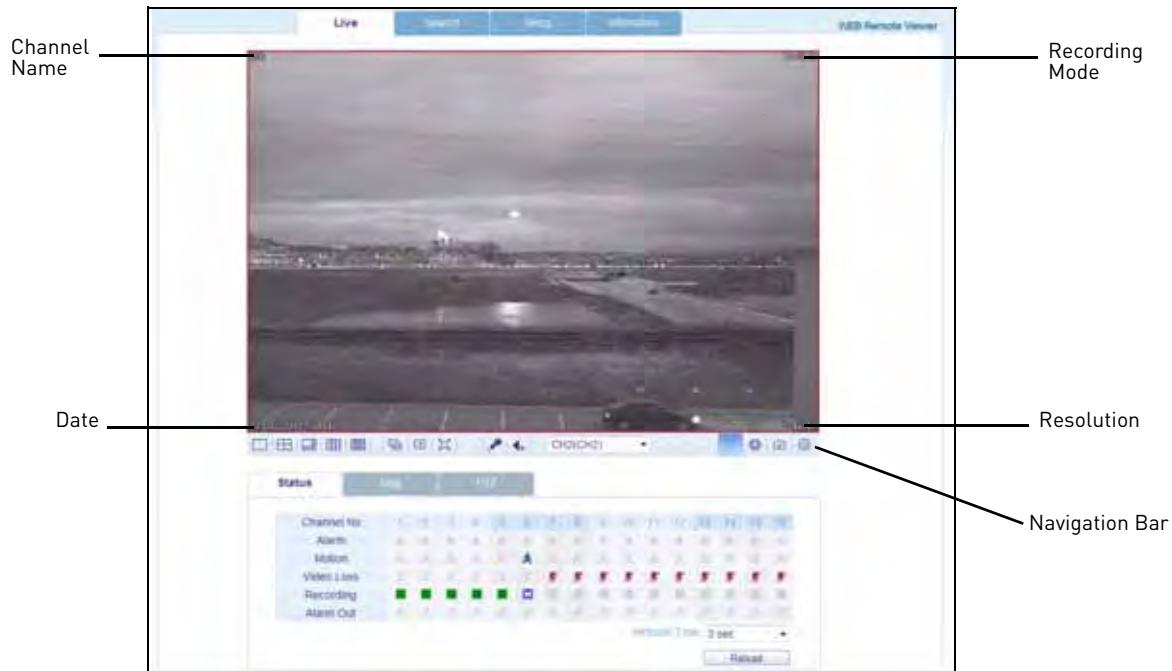


Figure 33.0 Live Tab, main view in single channel mode.

### Viewing Video In Different Modes

To view video in different modes:

- Click the buttons in the Navigation Bar to view video in 1-channel, 4-channel, 8-channel, 9-channel and 16-channel modes.
- Click to view the next channel.
- Click to view video in full screen mode.

### Viewing Channels In A Sequence

You can view channels on a rotation by using the Sequence feature. For example, you may want to view channels 1 through 9 in full screen, and have them change channels every 3 seconds.

To view video in a sequence:

- Click the button in the Navigation Bar.

## Enabling Audio During Viewing

You must have a microphone installed onto your system before you can hear audio during remote viewing.

To enable the audio source while viewing:

- Click the  to enable audio. Click again to disable audio

## Syncing Video Audio

It is recommended to synchronize audio with the video (if audio is available). It is recommended to have this setting ON when saving video files. Syncing audio with video ensures that there is no delay between the video and audio.

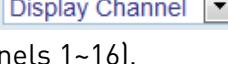
To sync audio with video:

1. Click  in the Navigation Bar. The Setup window opens.
2. Under Audio, select **Sync**.
3. Click the **Live CH** drop-down menu, and select the desired audio channel (CH 1~4).
4. Click **Save**.

## Muting Audio

- To mute audio, press . The speaker icon displays a red X to indicate muted audio: 

## Switching Channels

- To switch channels, click the  drop-down menu in the Navigation Bar, and select desired channel (Channels 1~16).

## Choosing a Save Directory

To select your DVR's save directory:

1. Click  in the Navigation Bar. The Setup window opens.

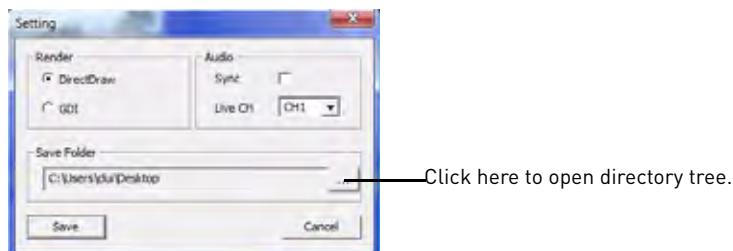


Figure 33.1 Settings Window.

2. Click  to open a directory tree, and select the desired save location.

## Saving Video Clips

You can save a video clip of streaming video and audio from any channel. Video clips save into the save directory you specify.

To save video from a channel:

1. Click on the channel you wish to record. The channel outlines in red.



2. Click  to begin saving the video. Click  again to stop recording.

## Printing An Image Of A Channel

To print an image of a channel:



1. Click  in the Navigation Bar. The Print window opens.
2. Select desired print settings, and press **OK** to print.

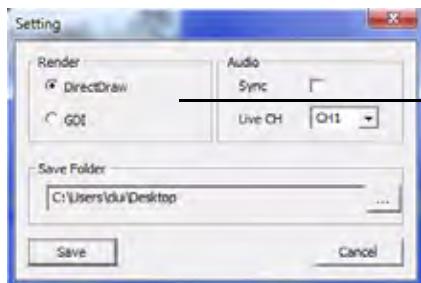
## Changing Hardware Video Acceleration Type

If your computer has problems processing the streaming video, you can try changing the video acceleration.

To change video acceleration type:



1. Click  . The Settings window opens.



Select DirectDraw or GDI.

Select GDI if you have video acceleration problems.

Figure 33.2 Settings Window.

2. Select **GDI** and then press **Save**.

## Monitoring Your Cameras

You can monitor all your cameras at a glance by using the Status tab (Figure 33.3).

Channel No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alarm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Motion	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Video Loss	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Recording	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Alarm Out	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Refresh Time

Figure 33.3 Monitor your cameras using the Status tab.

The Status tab allows you to have a "bird's eye view" of all the connected cameras.

For example, in figure 33.3, motion was detected in Channel 6, indicated by the icon. If you click , you will jump to Channel 6. This allows you to quickly and easily view a channel with activity.

## Increasing and Reducing Video Refresh Rates

You can increase and reduce how often the video feed images refresh. Reducing the refresh time improves video fluidity. Increasing refresh times reduces video fluidity.

If you have a fast internet connection, it is recommended to set the refresh time to the lowest possible setting (3 second refresh rate). This allows you to view video with more movement.

If you have a slow internet connection, it is recommended to set the refresh rate to higher settings (6~10 second refresh rate) to reduce bandwidth consumption.

To change image refresh rates:

- Click the Refresh Time drop-down menu, select desired refresh rate, and then press **Reload** (Figure 33.4).

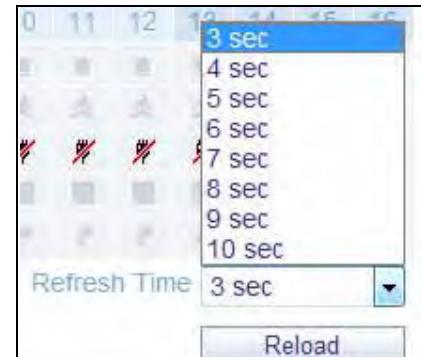
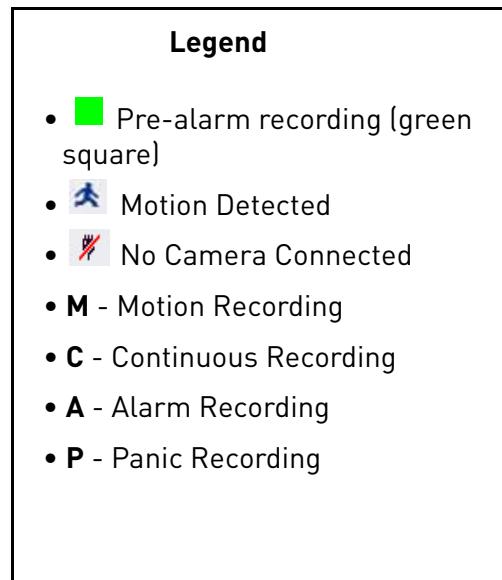


Figure 33.4 Refresh Time drop-down menu

## Viewing An Event Log

Viewing an Event Log allows you to view a list of events that happened. For example, you may want to see if there were any system changes during the weekend.

To view an event log:

- Click the **Log tab** and press the **Page Down** and **Page Up** buttons to scroll through the log.

Status		Log	PTZ
No	Camera Title	Date/Time	Log
17	CH4	2009.11.04 10:14:35	Continuous Recording On #4
18	CH3	2009.11.04 10:14:35	Continuous Recording On #3
19	CH2	2009.11.04 10:14:35	Continuous Recording On #2
20	CH1	2009.11.04 10:14:35	Continuous Recording On #1
21	SHOW	2009.11.04 10:14:35	Continuous Recording Off #6
22	CH5	2009.11.04 10:14:35	Continuous Recording Off #5
23	CH4	2009.11.04 10:14:35	Continuous Recording Off #4
24	CH3	2009.11.04 10:14:35	Continuous Recording Off #3

Page Down & Page Up buttons

Figure 33.5 View events in a list by using the Log tab.

## Configuring PTZ Settings

You can configure your PTZ (Pant, Tilt, Zoom) camera remotely.

To configure your PTZ camera:

1. Click the PTZ tab to open the configuration window (Figure 34.0).

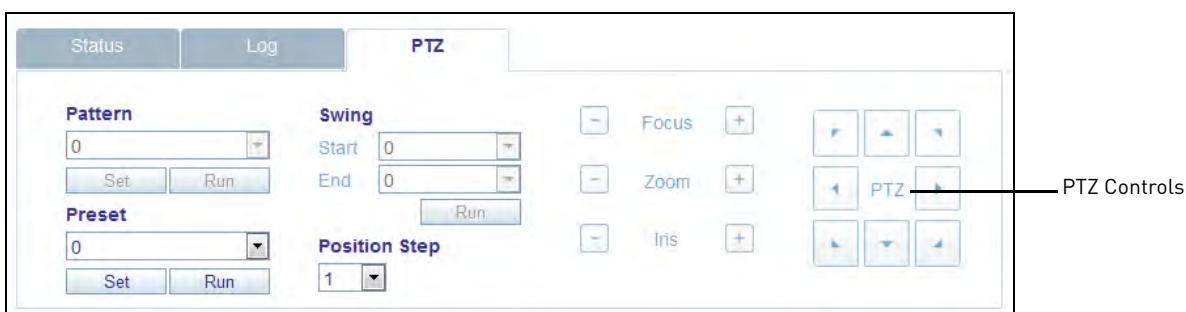


Figure 33.6 PTZ tab.

- **Pattern** and **Swing** are grayed out because they must be configured through the PTZ camera.
- Use the PTZ controls to manipulate camera movement.
- Refer to your PTZ owner's manual for configuration information.

**NOTE:** PTZ cameras require independant configuration, and cannot be configured through the DVR.

## The Search Tab

The Search tab allows you to search video events on your DVR.

### Searching For A Video By Time

You can narrow your searches by searching for events by time.

To search for events by time:

1. Click the **Search** tab near the top of the window. The Search window opens.

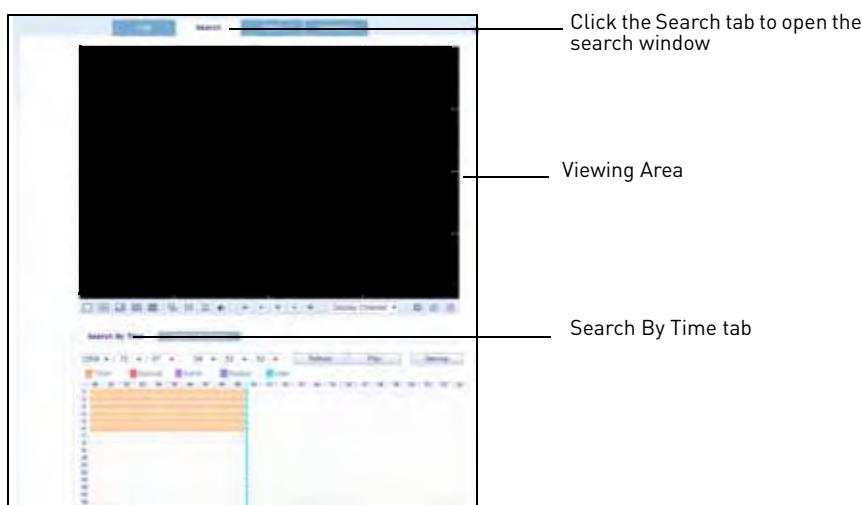


Figure 34.0 Search tab.

2. Click the **Search By Time** tab (default).



Figure 34.1 Search By Time tab.

3. Click the drop-down menus and select the year, month, date and time of the event you wish to search for. Click **Play** to start video viewing.

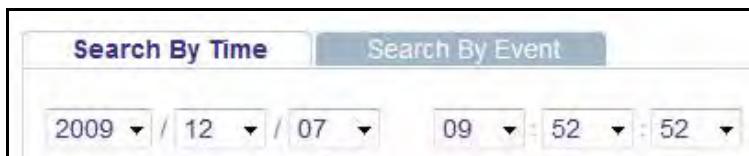
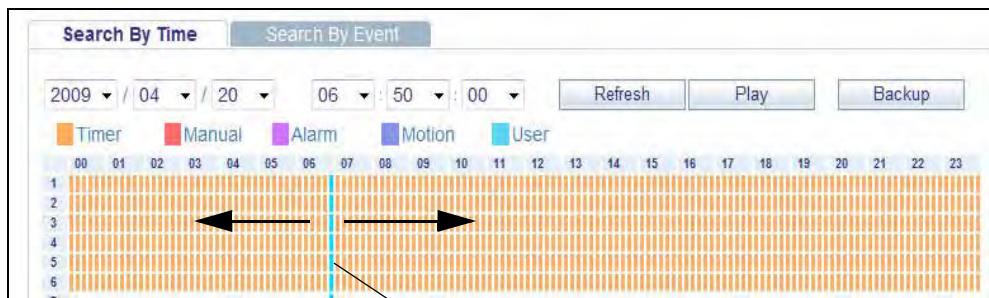


Figure 34.2 Click the drop-down menus to select the time and date of the event.

4. Drag the vertical, blue bar left or right to scan through the video time frame.



Drag blue search bar to scan through video time.

Figure 34.4 Searching video by time.

5. Use the video playback toolbar underneath the video window to control video playback, and viewing modes.

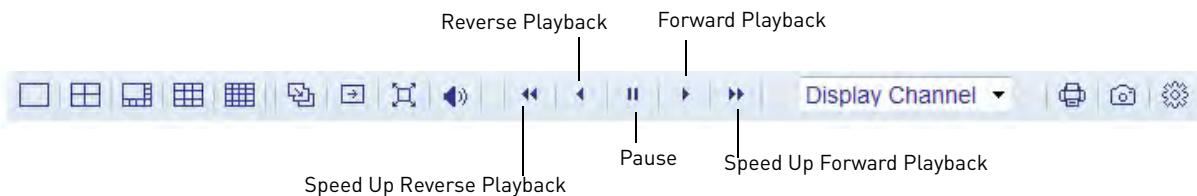


Figure 34.3 Video playback toolbar.

- To increase reverse playback or forward playback speed, click or repeatedly to increase the playback speed.
- Reverse playback speeds are: -1x, -2x, -4x, -8x, -16x, -32x, -64x.
- Forward playback speeds are: 1x, 2x, 4x, 8x, 16x, 32x, 64x.

## Searching For A Video By Event

You can search for videos by event. This allows you to narrow your searches with specific criteria.

To search for a video by event:

1. Click the **Search By Event** Tab.



Figure 34.4 Search By Event tab.

2. Under **Event**, select/de-select the criteria you want to search your video with.
3. Under **Period**, select the year, time, and date range you wish to search your video with.
4. Beside Search button, click the drop-down menu, and select whether you want to search the video Nearest or Farthest to the event.

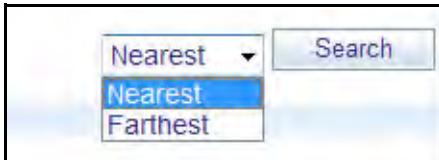


Figure 34.5 Click the drop-down menu to search the event nearest, or farthest date and time to the video event.

5. Click **Search** to populate the search list (Figure 34.6).

Populated search results

Figure 34.6 Search By Event tab with a populated search result list.

6. Click on the desired event in the populated search result list. Video playback begins.

## Backing Up A Video

To back up video to your computer:

1. Under the Search Tab click the **Search By Time** tab and then click **Backup**.

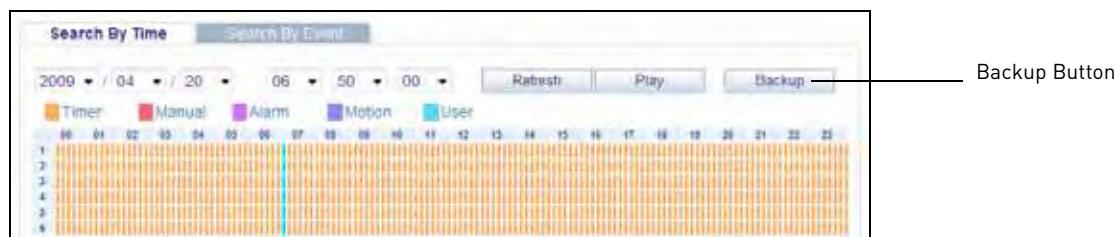


Figure 34.7 Click the Backup button to open the backup menu.

2. The Backup window opens. Using the drop-down menus, select the day, month, year and time range (Figure 34.8).

3. Under Channel Select, select what channels you wish to back up.

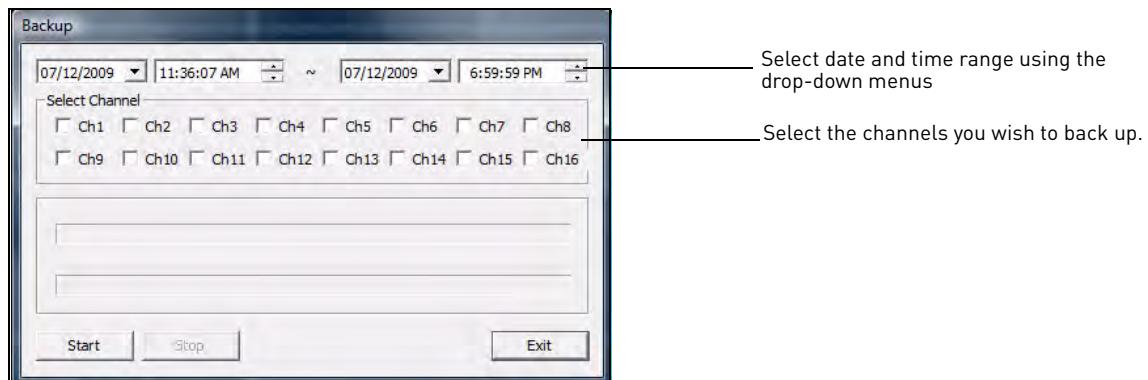


Figure 34.8 Backup menu.

4. Click **Start** to begin video backup.

**NOTE:** If selecting multiple cameras to record, multiple files are created. For example, if you select channels 1~3 to be recorded, three individual video files will be created.

**NOTE:** Videos are in AVI format.

## The Setup Tab

The setup tab allows you to configure your camera, DVR and network settings.

The Setup tab allows you to configure eight main settings: **Camera, Display, Sound, System, Record, User, Network and Sensor**.

Each main menu expands into sub-menus. For example, the **Camera** setting expands into the Camera sub-menu, Color sub-menu, PTZ sub-menu, and Motion sub-menu (Figure 35.0).

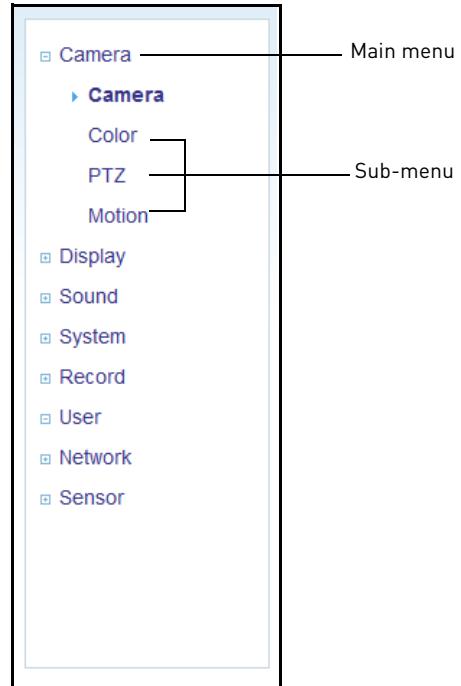


Figure 35.0 Navigation Menu

## Configuring Camera Settings

### Setting Camera Name, Covert Settings and Camera Audio Input

To set up camera properties:

1. Click the **Setup** Tab near the top of the window. The Camera settings window opens.

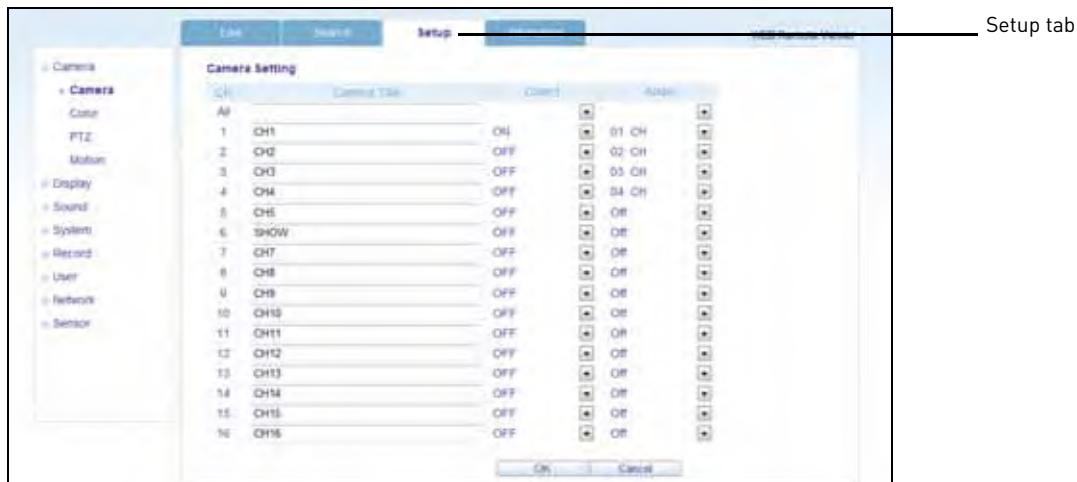


Figure 35.1 Camera Settings: Change camera title, enable/disable Covert recording mode, and enabling audio.

2. Under **Camera Title**, enter in a name of the camera. Enter in a name beside the **All** field to give all your cameras the same name.
3. Under **Covert**, select **ON** or **OFF**.  
**NOTE:** Under Covert recording, the camera view blacks out during recording. This gives the impression that the particular channels is inactive.
4. Under **Audio** select desired audio channel (Channels 0~4) to use with the specific channel.
5. Click **OK** to save your settings.

### Adjusting Camera Color

To adjust the camera color:

1. Click the **Color** sub-menu (Camera>Color). The Color-Setting window opens.



Figure 35.2 Adjust camera color settings.

2. Adjust **Brightness**, **Contrast**, **Tint** and **Color** by entering values between 0~100.
  - To apply the same settings across all cameras, enter all values beside **All**.
3. Click **OK** to save the settings.

## Adjusting PTZ Settings

To adjust PTZ camera settings:

1. Click the **PTZ** sub-menu (Camera > PTZ). The PTZ sub-menu opens.



Figure 35.3 PTZ settings menu.

2. Under **CH Protocol** select the desired PTZ protocol to use from the drop-down menu.
  - The PTZ protocol choices are: PelcoD, pelcoP, MESA-DOME, D-Max, Fastraxll\_2, Ganz\_PT\_V3\_2, Scc641, Scc643a, Spd\_3300, Multix, MRX\_1000, WV-cs850, WV-csr604, PTC-400c, PTC-200, TAKEX, LPT-A100L.
3. Under **Address Baudrate**, select the desired baudrate from the drop-down menu.
  - The Baudrate choices are: 2400, 4800, 9600, 19200, 384000, 57600, 115200.
4. Under **Auto Focus / Auto Iris**, select **ON** or **OFF** from the drop-down menu.
5. Under **PT Speed / Zoom Speed**, select values between 1~10 from the drop-down menu.
6. Under **Focus Speed/ Iris Speed**, select values between 1~10 from the drop-down menu.
7. Click **OK** near the bottom of the window to save your settings.

## Configuring Camera Motion Detection Settings

Configuring motion settings on your camera allows you to tell the camera to trigger motion recording in a certain portion of the screen.

To configure the camera motion recording settings:

1. Click the **Motion** sub-menu (Camera>Motion). The Motion window opens.

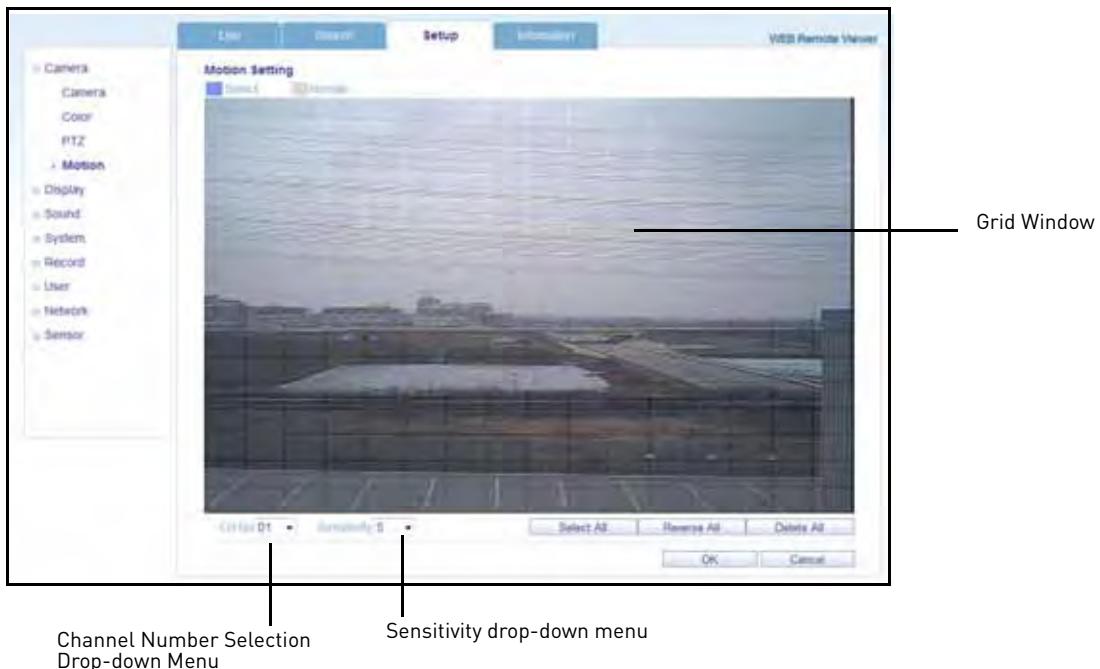


Figure 35.4 Motion Settings menu.

2. Under **CH No** select the channel number from the drop-down menu you wish to configure.
3. Under **Sensitivity** select sensitivity levels (1~10) from the drop-down menu.
4. Drag your cursor in the Grid Window, of where you wish to increase motion sensitivity. The grids turn light-blue when you hold down the mouse, and turn light yellow when you release the mouse.



Figure 35.6 Adjusting motion sensitivity.

5. Click the **Select All** button to highlight the entire grid or;
  - Click the **Reverse All** button to reverse the grid area selection.
  - Click the **Delete All** button to delete all highlighted areas in the grid.
6. Click **OK** to save your settings.

## **Configuring Display Settings**

### **Adjusting OSD (On Screen Display) Settings**

To configure OSD settings:

1. Click **Display** on the navigation bar on the left. The OSD Settings window opens.



Figure 36.0 OSD Setting window.

2. Under the **Status Bar Timeout** drop-down menu, select the duration of when the status bar in the DVR menu "hides" or times out.
  - The Status Bar Timeout choices are: Always, 5 seconds, 10 seconds, 15 seconds, 20 seconds, 30 seconds, 1 minute.
3. Under the **Camera Title** drop-down menu, select **ON** or **OFF** to toggle the camera name display on or off when viewing video.
4. Under the **Recording Mode Icon** drop-down menu, select **ON** or **OFF** to toggle the recording mode icon on or off when viewing video.
5. Under the **Border** drop-down menu, select **ON** or **OFF** to toggle a border around a viewing window when a window is clicked.
6. Under the **Border Color** drop-down menu, select the color you want the border to be.
  - Border Color choices are: White, Gray, Yellow, Blue, Green, Red.
7. Under the **Motion Sensor Display** drop-down menu, select **ON** or **OFF** to turn the motion sensor display on or off.

8. Under the **Motion Color** drop-down menu, select the color the grid turns when the DVR detects motion.
  - Color choices are: Yellow, Blue, Green, Red.

## Adjusting Video Monitoring Settings

To adjust Montior Settings:

1. Click the **Monitor** sub-menu (Display>Monitor). The Monitor Setting window opens.



Figure 36.1 Monitor Setting window.

2. Under the **Sequence Dwell** drop-down menu, select the duration you want a sequence to remain on screen.
  - Sequence Dwell choices are: 1 second, 2 seconds, 3 seconds, 5 seconds, 10 seconds, 15 seconds, 20 seconds, 30 seconds, 40 seconds, 60 seconds.
3. Under the **Spot Dwell** drop-down menu, select the duration you want the spot dwell to last.
  - Spot Dwell choices are: 1 second, 2 seconds, 3 seconds, 5 seconds, 10 seconds, 15 seconds, 20 seconds, 30 seconds, 40 seconds, 60 seconds.
4. Under the **De-interlace Mode** drop-down menu, select **ON** or **OFF** to turn on or off de-interlacing mode.
  - It is recommended to turn de-interlacing mode on for improved image quality.
5. Under the **Alarm Pop-up Mode** drop-down menu, select **ON** or **OFF** to turn on or off Alarm Pop-up.
  - When an alarm recording is triggered, the Alarm Pop-up mode will automatically bring the channel with the alarm recording into full screen.
6. Under the **Alarm Pop-up Dwell** drop-down menu, select the duration of the Alarm Pop-up.
  - Alarm Pop-up Dwell durations are: 1 second, 2 seconds, 3 seconds, 5 seconds, 10 seconds, 15 seconds, 20 seconds, 30 seconds, 40 seconds, 60 seconds.
7. Under the **Motion Pop-up Mode** drop-down menu, select **ON** or **OFF** to turn on or off Motion Pop-up Mode.
  - When a Motion Recording is triggered, the Motion Pop-up mode will automatically bring the channel with the motion recording into full screen.

8. Under the **Motion Pop-up Dwell** drop-down menu, select the duration of the motion pop-up window.
  - Motion Pop-up Durations are: 1 second, 2 seconds, 3 seconds, 5 seconds, 10 seconds, 15 seconds, 20 seconds, 30 seconds, 40 seconds, 60 seconds.
9. Click **OK** to save your settings.

## Adjusting Audio Settings

To adjust audio settings:

1. Click **Sound** on the navigation bar on the left. The Audio Setting window opens.

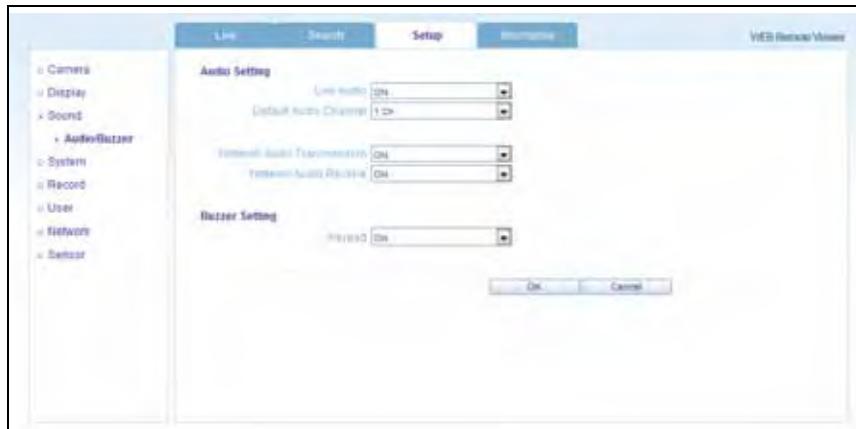


Figure 36.2 Audio Setting window.

2. Under the **Live Audio** drop-down menu, select **ON** or **OFF** to enable or disable live audio.
3. Under the **Default Audio Channel** drop-down menu, select an audio channel between channel 1~4.
4. Under the **Network Audio Transmission (2-way audio)** drop-down menu, select **ON** or **OFF** to enable or disable two-way audio.
5. Under the **Network Audio Receive (1-way audio)** drop-down menu, select **ON** or **OFF** to enable or disable one-way audio.
6. Under the **Keypad** drop-down menu, select **ON** or **OFF** to enable or disable the button 'beeps' on the DVR.
7. Click **OK** to save your settings.

## *Configuring System Settings*

## Configuring Date and Time

To configure your DVR's date and time:

1. Click **System** on the navigation bar on the left. The Date/Time setting window opens.



Figure 36.3 Date/Time setting window.

2. Under the **Date Format** drop-down menu, select the format you want the dates to display.
  - Date format options are: YYYY/MM/DD or MM/DD/YYYY or DD/MM/YYYY.
3. Under the **Time Format** drop-down menu, select **24-hour** to enable 24-hour clock display. Select **AM/PM** to enable 12-hour clock display.
4. Under **Network Time Server Setup**, type in the address you want the DVR to retrieve the time (by default: POOL.NTP.ORG).
5. Under the **Time Zone Setup** drop-down menu, select your local time zone.
6. Under the **D.S.T** drop-down menu, select **ON** or **OFF** to enable or disable daylight savings time.
7. Click **OK** to save your settings.

## Viewing System Information

To view your DVR's system information:

1. Click the **Management** sub-menu (System>Management). The System Information Setting window opens.



Figure 36.4 Management window.

- Under System Information Setting, your DVR's system information is displayed.

System Information Setting	
S/W Version	15210.1.40.233
H/W Version	ATM0824
Video Signal Type	NTSC
Disk Capacity	31 GB / 244 GB
IP Address	192.168.0.104
MAC Address	00115f0580f
DDNS Domain Name	DHU600LINUX
RTSP Service Port	1025
Web Service Port	2000

Figure 36.5 System Information Setting window.

## Changing Your DVR's Name

To change your DVR's name:

1. Click the **Management** sub-menu (System> Management). The System Information Setting window opens.

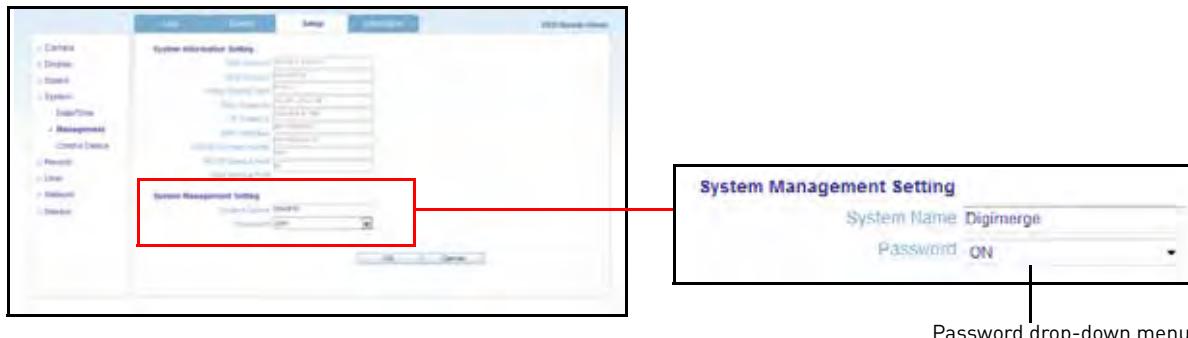


Figure 36.6 System Management Settings.

Password drop-down menu

2. Under the **System Name** field, enter in your desired DVR name.

## Enabling / Disabling the DVR's Password

1. Click the **Management** sub-menu (System> Management). The System Information Setting window opens.
2. Under the **Password** drop-down menu, select **ON** or **OFF** to enable or disable your DVR's password prompt during login (Figure 36.6).
3. Click **OK** to save your settings.

## Changing PTZ Keyboard Settings

To change your PTZ Keyboard settings:

1. Click **Control Device** in the sub-menu (System>Control Device). The Control Device Setting window opens.

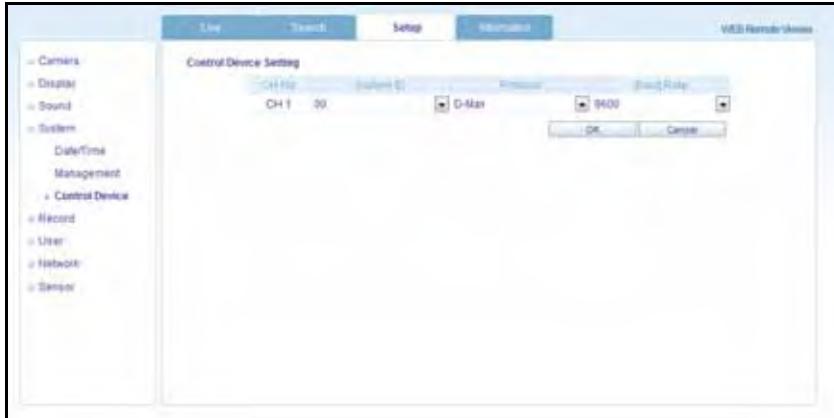


Figure 36.7 Control Device Setting window.

2. Under the **System ID** drop-down menu, select an ID between 00~255.
3. Under the **Protocol** drop-down menu, select desired protocol (D-MAX, Ganz, Simens, Mesa-KB)
4. Click **OK** to save your settings.

## Configuring Recording Settings

### Adjusting Pre and Post Alarm Duration

To enable Pre and Post recording time:

1. Click **Record** on the navigation bar on the left. The Record Operation Setting window opens.



Figure 36.8 Record Operation Setting window.

2. Under the **Pre Event Recording Time** drop-down menu, select the duration of the pre-event recording (0~5 seconds)
3. Under the **Post Event Recording Time** drop-down menu, select the duration of the post-event recording (0~5 seconds)
4. Click **OK** to save your settings.

## Setting Schedule Mode Duration

To set the duration of schedule mode:

1. Click **Record** on the navigation bar on the left. The Record Operation Setting window opens.
2. Under the **Schedule Mode** drop-down menu, select the duration you want to enable Schedule Mode for (**Daily** or **Weekly**).
3. Click **OK** to save your settings.

## Adjusting Continuous and Motion Recording Settings

To adjust continuous and motion recording settings:

1. Click the **Continuous/Motion** sub-menu (Record>Continuous/Motion). The Continuous/Motion Recording Setting window opens.

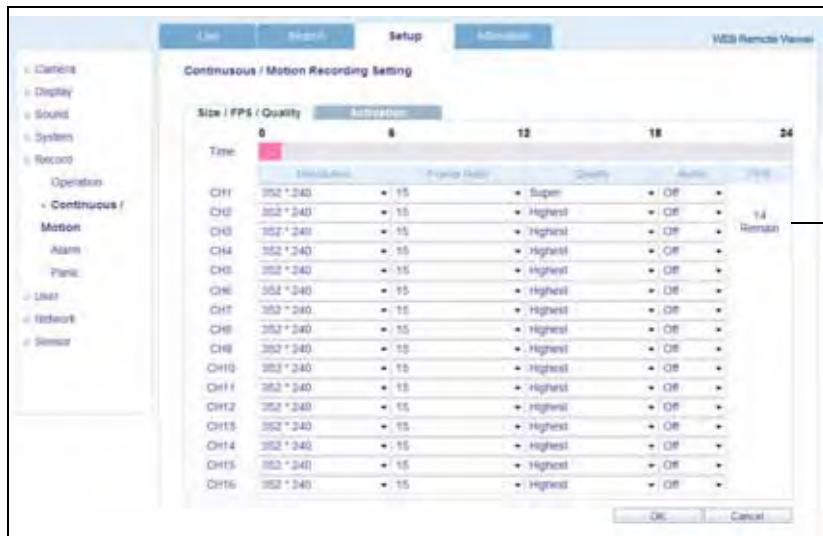


Figure 36.8 Continuous/Motion Recording Settings window.

2. Under **Time**, drag your cursor across the grayed out boxes to highlight what time you want to activate continuous/motion recording. When you release the cursor, the boxes turn pink to confirm your selection. This applies the recording time globally.

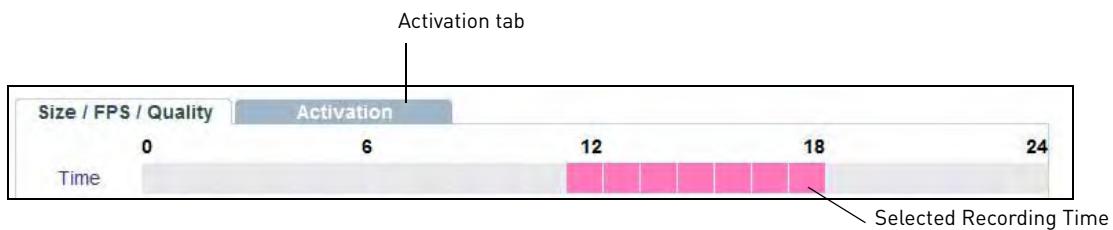
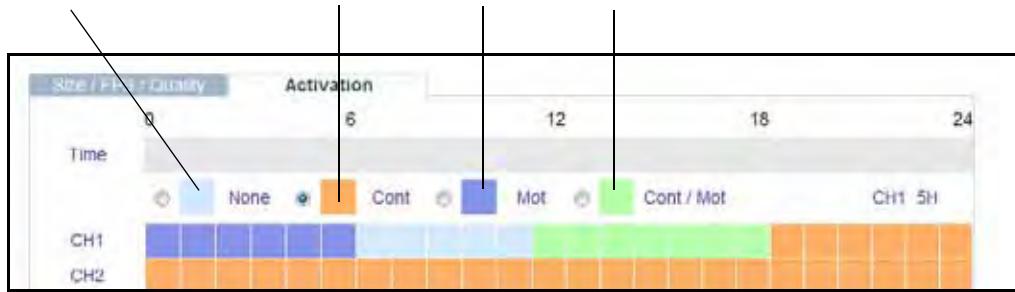


Figure 36.9 Setting the time duration of continuous and motion recording. The pink boxes indicate active recording times. In this example, the active recording times are from 12:00PM to 6:00PM.

- To configure each channel with specific recording parameters, click the **Activation** tab.

### Configuring the Activation Tab (Optional)

None (no recording)   Continuous Recording   Motion Recording   Continuous/Motion Recording



In this example, the user configured channel 1 [CH1] with different recording types.  
Between 12:00AM and 6:00AM, motion recording [Mot] is enabled.

Between 6:00AM and 12:00PM, no recording type [None] is selected.  
Between 12:00PM and 6:00PM, continuous and motion recording [Cont / MOT] is selected.

Figure 37.0 Activation tab.

To configure the Activation tab:

- Select the recording type (**Cont** (continuous recording); **Mot** (motion recording); **Cont/Mot** (continuous and motion recording) )
- Drag your cursor across the channel bar to select the duration of recording.
- **Optional:** Select a second and third recording type (**Cont, Mot, Cont/Mot**) and drag your cursor across the channel bar.
- Use the **Select All, Reverse All, Delete All** buttons near the bottom of the window to manipulate what you select.
- Click **OK** to save your settings.

**NOTE:** You can mix recording types in a channel. See Figure 37.0.

3. Under the **Resolution** drop-down menu, select the desired resolution for each channel.
  - Resolution choices are: 352 x 240, 704 x 240, 704 x 480.
4. Under the **Frame Rate** drop-down menu, select the desired frame rate for each channel.
  - Frame Rate choices (in FPS) are: 1, 2, 3, 7, 15, 30.
  - The far-right column, under **FPS**, shows you how many FPS you have remaining.
5. Under the **Quality** drop-down menu, select the desired recording quality of each channel.
  - Recording quality choices are: Super, Highest, High, Medium, Low.
6. Under the **Audio** drop-down menu, select **ON** or **OFF** to enable or disable audio in the specified channel.
7. Click **OK** to save your settings.

## Configuring Alarm Recording Settings

You can configure recording parameters for Alarm recording. When an alarm recording is triggered, these settings automatically activate. For example, in an area with high traffic, you may want to have higher details, and higher frame rates. In an area with less traffic, you may want less detail and slower frame rates.

To configure Alarm Recording settings:

1. Click the **Alarm** sub-menu on the navigation bar on the left (Record>Alarm). The Alarm Recording Setting window opens.

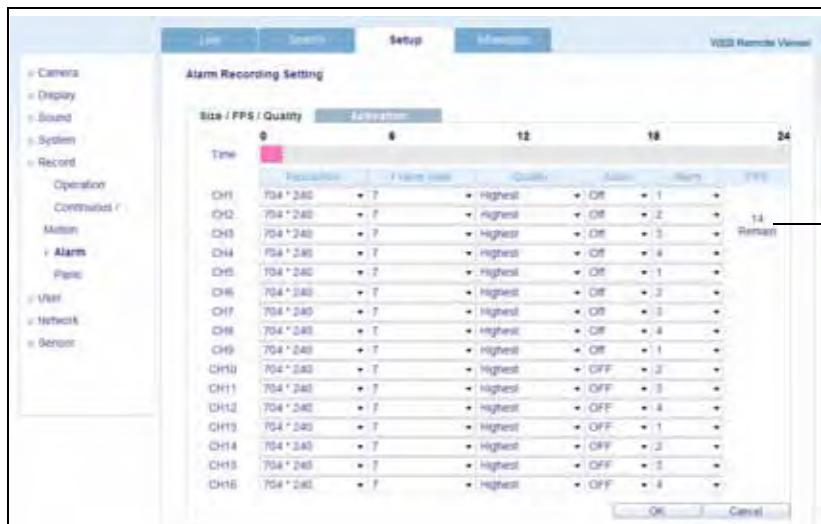


Figure 37.1 Alarm Recording Setting window.

2. Under **Time**, drag your cursor across the grayed out boxes to highlight what time you want to activate Alarm recording. When you release the cursor, the boxes turn pink to confirm your selection. This is a global setting, and applies to all cameras.
  - To configure what time each channel records in alarm mode, click the **Activation** tab.

### Configuring the Activation Tab



Figure 37.2 Alarm Activation window.

To configure the Alarm Activation tab:

- Drag the cursor across the gray channel boxes. Active recording times highlight in purple boxes. Click **OK** to save your settings.

3. Under the **Resolution** drop-down menu, select the desired resolution for the specific channel.
  - Resolution choices are: 352 x 240, 704 x 240, 704 x 480.

4. Under the **Frame Rate** drop-down menu, select the desired frame rate for the specific channel.
  - Frame Rate choices (in FPS) are: 1, 2, 3, 7, 15, 30.
  - The far-right column, under **FPS**, shows you how many FPS you have remaining.
5. Under the **Quality** drop-down menu, select the desired video quality for the specific channel.
  - Quality setting choices are: Super, Highest, High, Medium, Low.
6. Under the **Audio** drop-down menu, select ON or OFF to enable or disable audio in a specific channel.
7. Under the **Alarm** drop-down menu, select the alarm you wish to activate (Alarms 1~4).
8. Click **OK** to save your settings.

## Configuring Panic Recording Settings

To configure Panic Recording Settings:

1. Click the **Panic** sub-menu on the navigation bar on the left (Record>Panic). The Panic Recording Setting window opens.



Figure 37.3 Panic Recording Setting window.

2. Under the **Resolution** drop-down menu, select the desired resolution for the specific channel.
  - The Resolution choices are: 352 x 240, 704 x 240, 704 x 480.
3. Under the **FrameRate** drop-down menu, select the desired frame rate for the specific channel.
  - Frame rate choices (in FPS) are: 1, 2, 3, 7, 15, 30.
  - The far-right column, under **FPS**, shows you how many FPS you have remaining.
4. Under **Quality**, select the quality of video during panic recording for the specific channel.
  - Quality setting choices are: Super, Highest, High, Medium, Low.
5. Under **Audio**, select **ON** or **OFF** to enable or disable audio for the specific channel.
6. Click **OK** to save your settings.

## Configuring User Settings

### Adding Users To The DVR

Setting User types allows the administrator to grant access to multiple users. The admin can set user password and email notifications settings.

To set user privileges on the DVR:

1. Click **User** on the navigation bar on the left. The User Management Setting window opens.



Figure 37.4 User Management Setting window.

2. Under the **User ID** field, enter in the desired user name. By default, the **ADMIN** user name is grayed out.
3. Under the **Password** field, enter desired user password.
4. Under the **Group** drop-down menu, select the desired user level: **ADMIN, MANAGER, USER**.
5. Under the **E-mail** field, enter a desired e-mail address to receive e-mail notifications from the DVR.
6. Under **Notification**, select the blank checkbox to enable e-mail notification for the particular user. De-select the checkbox to disable e-mail notification for the particular user.
7. Under **Del/Add**, click the **Add** button to add user to the list.
  - Click the **Del** button beside a user name to remove a user from the list.
8. Click **OK** to save your settings.

### Granting User Access To Specific DVR Features

To grant users specific access to DVR menus:

1. Click the **Authority** sub-menu on the navigation bar on the left (User>Authority). The User Authority Setting window opens.

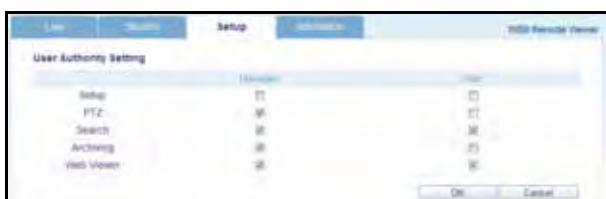


Figure 37.5 User Authority Setting window.

2. Under **Manager**, select what type of menus the manager account will have access to.
  - Setting choices are: Setup, PTZ, Search, Archiving, Web Viewer.
3. Under **User**, select what type of menus the user account will have access to.
  - Setting choices are: Setup, PTZ, Search, Archiving, Web Viewer.
4. Click **OK** to save your settings.

## Adjusting Log Out Settings

To adjust log out settings:

1. Click the **Log Out** sub-menu on the left navigation bar (User>Log Out). The Log Out Setting window opens.



Figure 37.6 Log Out Setting window.

2. Under the **Auto Logout** drop-down menu, select **ON** or **OFF** to enable or disable auto logout.
3. Under the **Duration** drop-down menu, select the duration a user has to wait before the DVR automatically logs out.
  - Duration choices are: 1 minute, 2 minutes, 3 minutes, 5 minutes, 10 minutes.
4. Click **OK** to save your settings.

## Configuring Network Settings

### Adjusting DVR Bandwidth Speed

To adjust DVR bandwidth speed:

1. Click **Network** on the navigation menu on the left. The IP Setup Setting window opens.



Figure 37.7 IP Setup Setting window.

2. Under the **Bandwidth** drop-down menu, select the desired bandwidth speed. It is recommended to leave this at the highest setting (**8192 Kbyte**).
3. Click **OK** to save your settings.

## Enabling DDNS on your DVR

To enable DDNS on your DVR:

1. Click **Network** on the navigation menu on the left. The IP Setup Setting window opens.
2. Under the DDNS drop-down menu, select **ON** to enable ddns.
3. Click **OK** to save your settings.

## Enabling DDNS

You must set up a DDNS account before you can enable DDNS on your system.

- For details on setting up a DDNS account, see “Appendix C: Setting Up DDNS Service” on page 99.

To enter your DDNS settings remotely using Web Remote Viewer:

1. Click **Network** on the navigation menu on the left. The IP Setup Setting window opens.
2. Click **DDNS**. The DDNS Setup Setting window opens.



Figure 37.8 DDNS Configuration.

3. In the DDNS drop-down menu, select **ON**
4. In the User ID field, enter the User ID of your DVR.
5. In the Domain Name field, enter the sub-domain of your DDNS address.
  - For example if your DDNS address is `tomsmith.digimerge.net`, your sub-domain is **tomsmith**.
6. In the Password field, enter your DVR login password.
7. Click the **Status** button to confirm DDNS is functional.

## Configuring An E-mail Server For The DVR

To configure the e-mail server settings for your DVR:

1. Click the **E-mail** sub-menu on navigation bar on the left (Network>E-mail).The E-mail setting window opens.

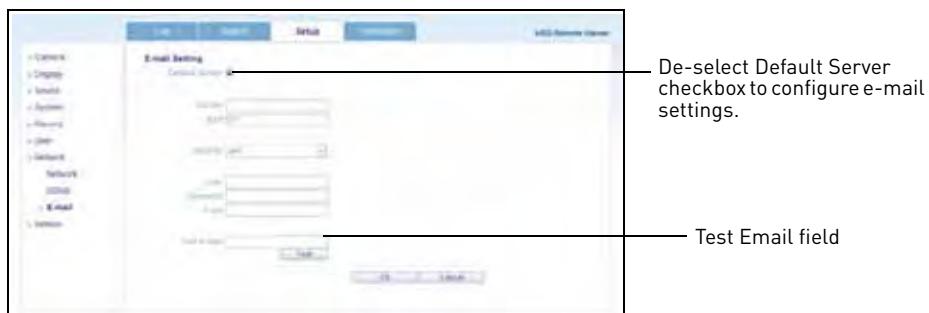


Figure 37.9 E-mail Setting window.

2. De-select the **Default Server** checkbox to manually input your e-mail server information.
  - By default, the Default Server is left enabled. It is recommended to leave the Default Server on.
  - If you select the Default Server checkbox, the system uses the Digimerge e-mail server to send you notification e-mails.
  - When the Default Server is left enabled, you cannot configure the e-mail settings.
3. Fill in the blank fields with the appropriate information.
  - The blank fields are: Server, Port, Security, User, Password, From.
  - Under **Server**, enter in your e-mail server's SMTP address.
  - Under **Port**, enter the port number of the e-mail server.
  - Under **User** and **Password**, enter in the e-mail user name and password.
  - Under **From**, enter where the e-mail address is coming from.
4. Click **OK** to save your settings.

### Testing the E-mail Server

- In the Test Email field, enter an e-mail address to receive a test e-mail from the system. Click the **Test** button to send out the e-mail. If the e-mail configuration is functional, a success message appears.

## Configuring HDD Event Settings

Your DVR's hard drive can detect imminent failure. You can configure how often the hard drive monitors itself for failure. If the hard drive detects a failure, it sends out a notification e-mail.

To configure your HDDs monitoring settings:

1. Click **Sensor** on the navigation menu on the left. The HDD Event Setting window opens.

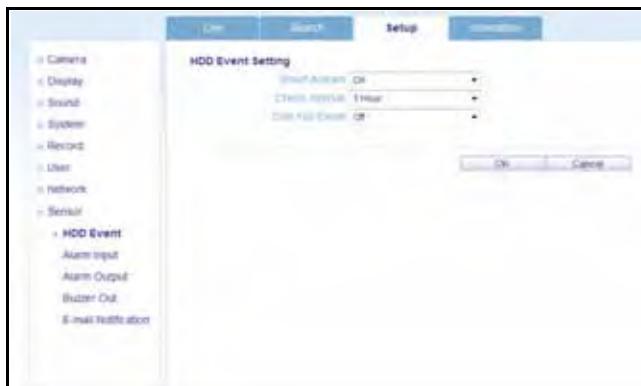


Figure 37.10 HDD Event Setting window.

2. Under the **Smart Alarm** drop-down menu, select **ON** or **OFF** to enable or disable the hard drive's SMART alarm.
3. Under the **Check Interval** drop-down menu, select how many hours in between the hard drive should monitor itself. For example, you may want the hard drive to monitor itself every hour, or every five hours.
  - Interval ranges are: 1~24 hrs.
4. Under the **Disk Full Event** drop-down menu, select **ON** or **OFF** to enable or disable the hard drive from notifying you via e-mail, if the hard drive is full.
5. Click **OK** to save your settings.

## Configuring Alarm Input Settings

To configure your alarm input settings:

1. Click the **Alarm Input** sub-menu on the navigation bar on the left (Sensor>Alarm Input). The Alarm Input Setting window opens.



Figure 38.0 Alarm Input Setting window.

2. Under the **Operation** drop-down menu, select **ON** or **OFF** to enable or disable alarm input on the particular channel.

**NOTE:** To apply changes across all channels, use the **ALL** drop-down menu.

Alarm Input Setting			
CH No	Operation	Type	Text
All			
CH1	Disable	N/O	ALARM 1
CH2	Enable	N/O	ALARM 2

Figure 38.1 Alarm Input Setting window.

3. Under the **Type** drop-down menu, select if the alarm is normally open (**N/O**) or normally closed (**N/C**).
4. Under the **Text** field, enter in the message you want to receive if an alarm is triggered.
5. Click **OK** to save your settings.

## Configuring Alarm Output Settings

To configure alarm output settings:

1. Click the **Alarm Output** sub-menu on the left navigation bar (Sensor>Alarm Output). The Alarm Output Setting window opens.



Figure 38.2 Alarm Output window.

2. Under the **Operation** drop-down menu, select **Enable** or **Disable** to turn on or off alarm the alarm output.

Alarm Out	01 CH	Grayed out by default
Operation	Enable	
Mode	Transparent	
Type	N/O	
Duration	5 sec	
HDD Event	Off	

Figure 38.3 Close up of the Alarm Output Setting window.

3. Under the **Mode** drop-down menu, select **Latched** or **Transparent**.
  - Latched alarms continually "beep" long after a camera detects motion. Transparent alarms "beep" only when there is motion. Once the camera does not detect motion, the "beeping" stops.
4. Under the **Type** drop-down menu, select **N/O** (normally open) or **N/C** (normally closed).
5. Under the **HDD Event** drop-down menu, select **ON** or **OFF** to enable or disable a hard disk failure to send out an e-mail notification.
6. For each channel, select which events you want to trigger an alarm (Figure 38.4).
  - For example, you may want a video loss and motion event in channel 2 to trigger an alarm.

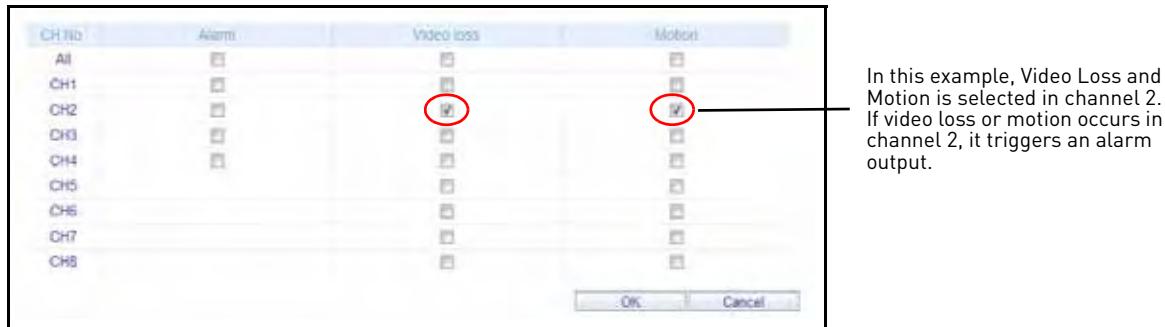


Figure 38.4 Alarm output selection.

7. Click **OK** to save your settings.

## Configuring Buzzer Out Settings

To configure Buzzer Out settings:

1. Click the **Buzzer Out** sub-menu on the navigation bar on the left (Sensor>Buzzer Out). The Buzzer Out Setting window opens.

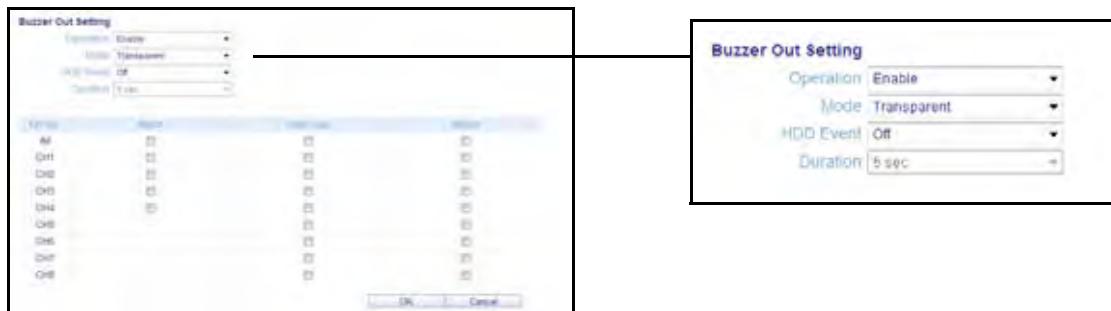


Figure 38.5 Buzzer Out Settings window.

2. Under the **Operation** drop-down menu, select **Enable** to configure buzzer settings.
3. Under the **Mode** drop-down menu, select **Transparent** or **Latched**.
4. Under the **HDD Event** drop-down menu, select **ON** to enable to trigger the buzzer when an HDD event occurs.
5. For each channel, select which events you want to trigger the buzzer (Figure 38.4).
  - For example, you may want a video loss and motion event in channel 2 to trigger a buzzer.
6. Click **OK** to save your settings.

## Configure E-mail Notification

To configure your e-mail notification settings:

1. Click the **E-mail Notification** sub-menu on the navigation bar on the left (Sensor>E-mail).  
The E-mail Notification Setting window opens.



Figure 38.6 E-mail Notification Setting window.

2. Under the **Notification** drop-down menu, select **ON** to enable e-mail notification.
3. Under the **HDD Event** drop-down menu, select **ON** to enable the DVR to send out an e-mail notification when a hard drive event occurs.
4. Under the **Setup Change** drop-down menu, select **ON** to enable the DVR to send out an e-mail when a user changes a setting in the setup menu.
5. Under the **Booting Event** drop down menu, select **ON** to enable the DVR to send out an e-mail when the DVR reboots.
6. Under the **Frequency** drop-down menu, select the interval of how often e-mail notifications are sent to you when an event occurs.
7. For each channel, select which events you want to trigger an e-mail notification (Figure 38.4).
  - For example, you may want a video loss and motion event in channel 2 to trigger a e-mail notification to be sent.

# APPENDIX A: SYSTEM SPECIFICATIONS

Specifications				
Model	4-Channel	8-Channel	16-Channel	
Operating System	Linux			
Pentaplex Function	Simultaneous Record/Playback/Network/Backup			
Video Compression	H.264 Codec (DSP Based)			
Live Display Speed (NTSC/PAL)	120/100 fps	240/200 fps	480/400 fps	
Recording Speed	120/100fps(CIF), 120/100fps(2CIF)	240/200 fps	480/400 fps* 240/200 fps	
Video Input	4CH(BNC)	8CH(BNC)	16CH(BNC)	
Video Output	DVI Monitor	1280X1024		
	Sub Monitor	1 Composite(BNC)		
	Spot-Out	1 Composite(BNC)		
	Loop-Out	None	8 channels	16 channels
Screen Division	Live	1,4	1,4,6,8,9	16
	Playback	1,4	1,4,9	1,4,6,8,9,16
Audio In/Out	4 Line in(RCA)/ 1 Line out(RCA), CODEC:G.711			
Alarm In/Out	4 In/ 1 relay			
Storage	Up to 2 HDD's(SATA) / Maximum 4TB (Terabytes)			
Archive	USB Device, CD/DVD-RW & Network			
USB Port	2 (front)			
PTZ & Keyboard control	RS-485			
System Control	USB Mouse, Front button, Remote controller & Keyboard controller			
Network	LAN, DHCP, Dynamic IP, DDNS, FTP			
Power	12V Adaptor, 5A, 100~220VAC, 50~60Hz			

\*Applies to 16-channel DHU600 Series DVRs with serial number **DB011007xxxxx** or later only.

Specifications	
Operating Temperature	0°C ~ 40°C
Humidity	10 ~ 90% NC
RemoteSW	CMS support, Web Viewer

## Playback Specifications

Playback Specifications		
Live Display	4-Channel	8 & 16 Channel
OSD	On/Off	
Border Color	Selectable	
Digital Zoom	None	Up to 3X
Playback		
Playback Speed	Up to 120fps @ 352x240 / Up to 100fps @ 352x288	Up to 240fps @ 352x240 / Up to 200fps @ 352x288
Playback Rate	Up to 120fps @ 704x240 / Up to 50fps @ 704x288 Up to 60fps @ 704x480 / Up to 25fps @ 704x576	Up to 120fps @ 704x240 / Up to 100fps @ 704x288 Up to 60fps @ 704x480 / Up to 50fps @ 704x576

As our products are subject to continuous improvement, Digimerge Technology Inc. and its subsidiaries reserve the right to modify product design, specifications, and prices without notice and without incurring any obligation. E&OE

## APPENDIX B: SETTING UP REMOTE VIEWING

Setting up remote viewing requires several steps. Networking skills are required to correctly configure the remote viewing functions.

### What Do I Need?

- DVR System
- A router (not provided with the system) and High Speed Cable or DSL Internet Connectivity (for remote viewing outside your network)

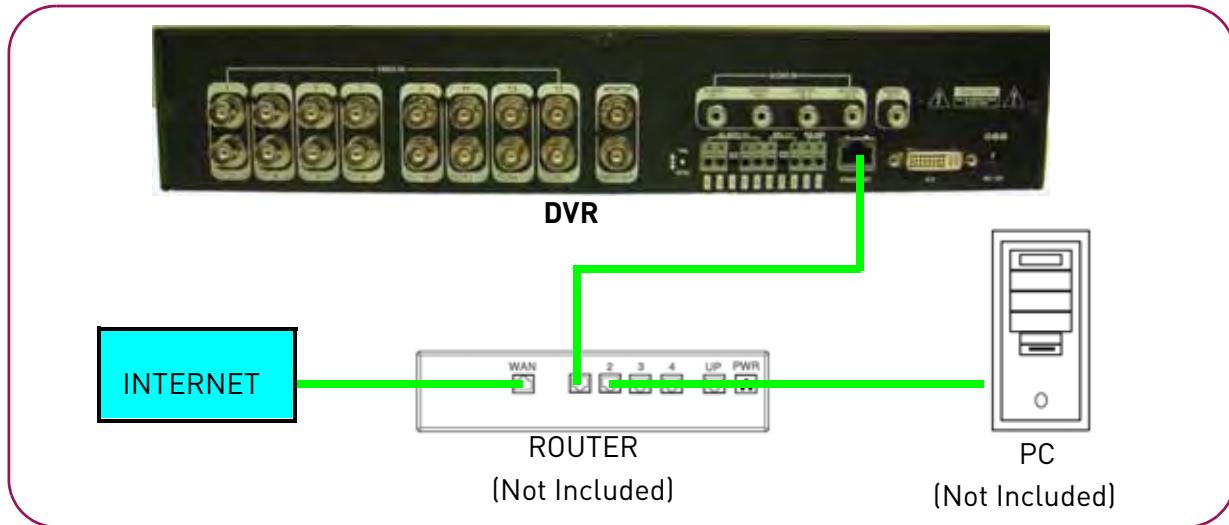


Figure 39.0 Network Setup

### Network Setup / Remote Access Overview

To setup remote viewing:

1. With the system powered off, connect the system to the router using an Ethernet cable.  
**NOTE:** You must connect the system to the router prior to turning on the system. This allows the system and router to communicate over the network.
2. Power on the system.
3. Press and hold the Enter button on the front panel to find your system's IP address.
4. Enable Port Forwarding on your router.
5. Setup an account at <http://ddns.digimerge.net>

## How Do I Find My IP and MAC addresses?

The IP and MAC address of your system are necessary for DDNS setup. DDNS allows you to view and control your system from a remote location.

SYSTEM INFORMATION	
S/W Version	12310.1.29.233
H/W Version	mnfst25B
Video Signal Type	NTSC
Disk Capacity	312 GB
IP Address	192.168.1.100
MAC Address	001160ff0073
DDNS Domain Name	SDN.DIGIMERGE.NET
Net Client Port	6400
Web Server Port	8080

Figure 39.1 DVR Status screen

To find your IP and MAC addresses:

1. Open the MAIN MENU and select **SYSTEM**.
2. Under the **INFO tab** you will find your system's IP address and MAC address.
3. Press ENTER NOT WORKING

### *Finding Your External IP Address*

If you wish to find your external IP address, you can use a third-party website such as [www.showmyip.com](http://www.showmyip.com)

Your external IP address can also be found within your Router settings. Refer to your router user guide for further details.

## How Do I Enable Port Forwarding?

You need to enable port forwarding on your router to allow for external communications with your system for the following ports:

- **80 and 554 (default)**

Computers, DVRs, and other devices inside your network can only communicate directly with each other within the internal network. Computers and systems outside your network cannot directly communicate with these devices. When a system on the internal network needs to send or receive information from a system outside the network (i.e. from the Internet), the information is sent to the router.

### NETWORK EXAMPLE

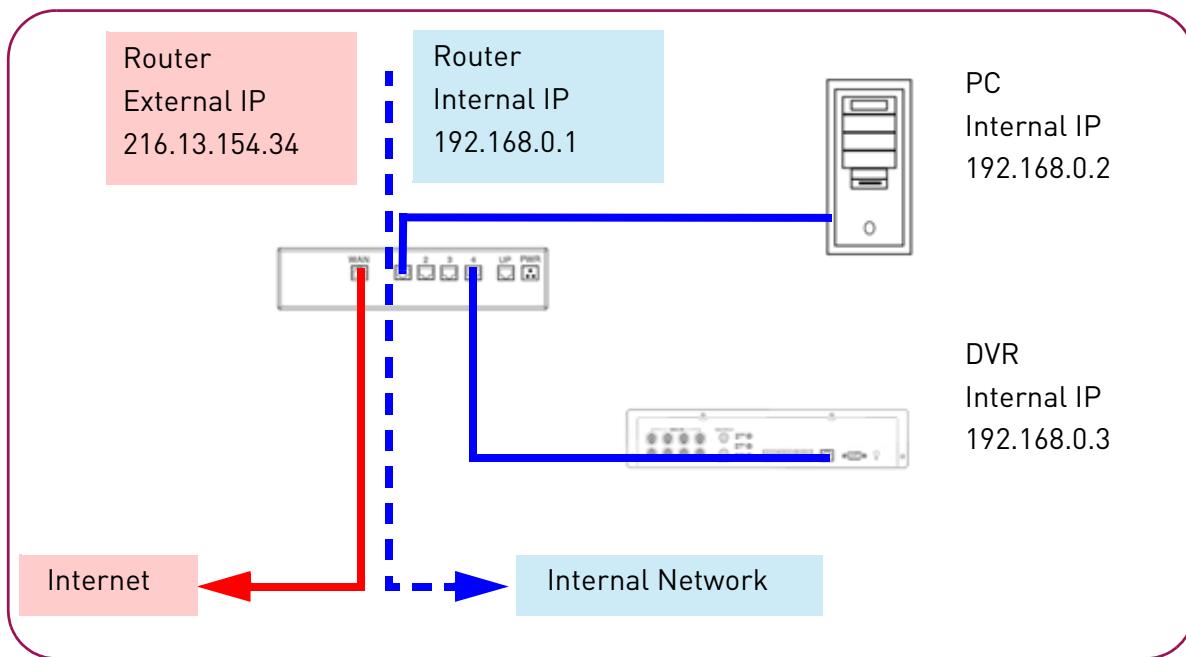


Figure 39.2 Network port numbers (example)

When a computer on the Internet needs to send data to your internal network, it sends this data to the external IP address of the Router. The Router then needs to decide where this data is to be sent to. This is where setting up Port Forwarding becomes important.

Port Forwarding tells the router which device on the internal network to send the data to. When you set up port forwarding on your Router, it takes the data from the external IP **address:port** number and sends that data to an internal IP address:port number (i.e. Router External IP 216.13.154.34 to DVR Internal IP **192.168.0.3:6400**).

The instructions found online in the Router Configuration Guides will assist you in the port forwarding configurations for a selection of different router models. Visit our Consumer Guides Support website at <http://www.digimerge.com/> for more details.

## APPENDIX C: SETTING UP DDNS SERVICE

Digimerge offers a free DDNS service for use with your system. A DDNS account allows you to set up a web site address that points back to your local network. The following outlines how to set up your free DDNS account.

To setup your free Digimerge DDNS account:

1. In your browser, go to <http://ddns.digimerge.net> and click **Create Account**.
2. Complete the Account Information fields with your personal information. Complete the Warranty Information with your purchase details (optional).
3. Complete the System Information fields:
  - **Product License (Code):** Select your product model from the Product License drop down menu (e.g. DHU600)
  - **MAC Address:** The physical address of your system on your network
  - **URL Request:** Choose a URL for your DDNS connection (i.e. your name, your company or business name, or anything of your choice)
4. Click **Create New Account** to create a new account and save your settings.
5. Your Account information will be sent to you at the email Address you used in step 2



Figure 39.3 Create a DDNS account

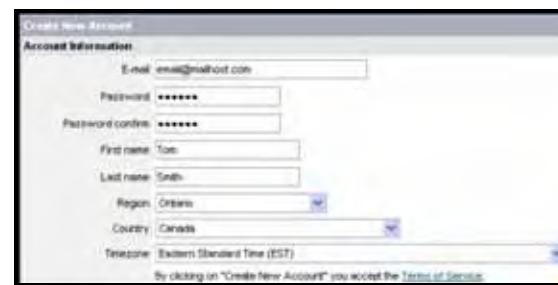


Figure 39.4 Enter personal information

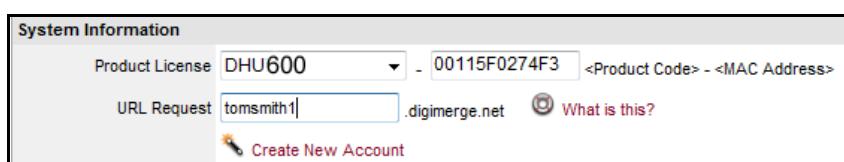


Figure 39.5 System information

You will need this information for remote access to your system. Record your information below:

**Username:** \_\_\_\_\_

\* Only the first part of the Domain Name is required for setup on the system. For example, if the full domain sent is *tomsmith.digimerge.net*, you only need to enter *tomsmith* on the system.

**Domain name\*:** \_\_\_\_\_

**Password:** \_\_\_\_\_

## How Do I Enable DDNS On My System?

Once you have registered for free DDNS service, use the information in the confirmation email to configure DDNS settings on your system.



**ATTENTION:** You must enter your DDNS information locally (on your local network) before attempting to connect to your system from a remote location using DDNS.

Figure 39.6 DDNS menu

To enable DDNS on your system:

1. Press the **SETUP** button twice on the remote control. Select **SYSTEM SETUP** and press **ENTER**. If necessary, log in with your user name and password (by default, user name: **ADMIN**; password: **1234**).
2. Select **NETWORK** and press **ENTER**.
3. Select **DDNS** and press **ENTER**.
4. Under **USER ID**, enter your **DDNS user name**.
5. Under **DOMAIN NAME**, enter only the **first portion of your DDNS domain** from the confirmation email. For example, if your domain name is **tomsmith.digimerge.net**, you only need to enter **tomsmith** in the text field.
6. Under **PASSWORD**, enter your **DDNS password**.

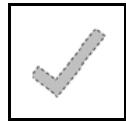
**NOTE:** Select **STATUS** and press **ENTER** to verify the DDNS connection.

7. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
8. Click **STATUS** to ensure the DDNS has been set up correctly. If the DDNS is set up correctly, a message will read "Success". If the DDNS is not set up correctly, a message will read "Fail".
9. Select **CLOSE** and press **ENTER** to exit.

With DDNS entered on your system, you can access your DVR from a remote location by using DigiClient remote software or by entering the Digimerge DDNS domain name in your browser.

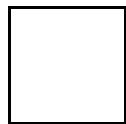
## Networking Checklist

Use this checklist to confirm you have completed all the steps of the Network Setup.



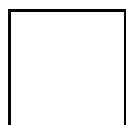
### *I have the following:*

- High-Speed Internet
- Router (not included)
- Ethernet cable (not included)
- Computer with Internet Explorer 6 or later



### *I have turned off the system and performed the following:*

- Connected the Ethernet cable to the back of the system
- Connected the other end of the Ethernet cable to my router



### *I have found my System Information:*

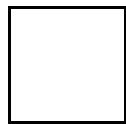
- Press the button **twice** on the remote control.

**OR**

- Main Menu>SYSTEM SETUP>SYSTEM>**SYSTEM INFORMATION**

My IP Address is: \_\_\_\_\_

My MAC Address is: \_\_\_\_\_.



### *I have enabled Port Forwarding on my router:*

- **Port 80 & 554**

**NOTE:** For added security, we strongly recommend changing HTTP port 80 on the system to *any desired port*—the port must not be blocked by your Internet service provider (ISP).

**NOTE:** Each router is different, so port forwarding settings vary by model. Please visit us on the web at [www.digimerge.com](http://www.digimerge.com) for assistance with the latest types of routers. If your router is not listed, please refer to your router's manual or contact your router's manufacturer for assistance.

***I have configured DDNS for remote access to my system:***

Go to <http://ddns.digimerge.net> and create a new account

Domain: \_\_\_\_\_

User ID: \_\_\_\_\_

Password: \_\_\_\_\_

***I have configured my system to connect to the DDNS server:***

**ATTENTION:** You *MUST* enter your DDNS information *LOCALLY* before attempting remote access.

To enable DDNS on your system:

To enable DDNS on your system:

1. Press the **SETUP** button twice on the remote control. Select **SYSTEM SETUP** and press **ENTER**. If necessary, log in with your user name and password (by default, user name: **ADMIN**; password: **1234**).
2. Select **NETWORK** and press **ENTER**.
3. Select **DDNS** and press **ENTER**.
4. Under DDNS, select **ON** to enable Digimerge DDNS.
5. Under USER ID, enter your **DDNS user name**.
6. Under DOMAIN NAME, enter only the **first portion of your DDNS domain** from the confirmation email. For example, if your domain name is tomsmith.digimerge.net, you only need to enter **tomsmith** in the text field.
7. Under PASSWORD, enter your **DDNS password**.

**NOTE:** Select **STATUS** and press **ENTER** to verify the DDNS connection.

8. Select **APPLY** and press **ENTER** to save your settings or select **CANCEL** to restore defaults.
9. Select **CLOSE** and press **ENTER** to exit.

**NOTE:** Once you have saved your DDNS settings, you must reset your DVR for the changes to take effect. Disconnect and reconnect the power cable from the rear panel to reset the system.

***I can access my system from a remote PC:***

To access your system remotely:

1. Open Internet Explorer and enter your **DDNS address** from the confirmation email. For example, *tomsmith.digimerge.net*  
**NOTE:** Remote viewing is compatible with Internet Explorer **only**.
2. Log in using your user name and password (by default, user name: **ADMIN**; password: **1234**).

## APPENDIX D: CONNECTING PTZ CAMERAS

You can connect RS-485 PTZ cameras (not included) to the PTZ Control Block on the rear panel of the system.

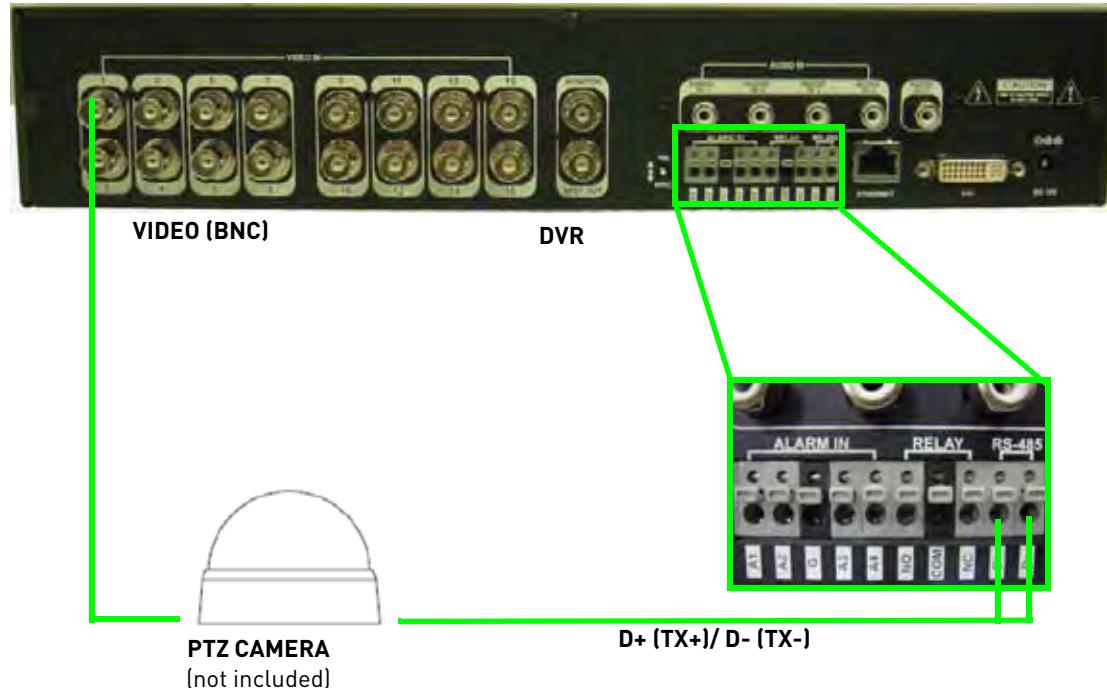


Figure 40.0 Connecting a PTZ camera (not included)

To install a PTZ Camera:

1. Connect the Transmit Cable to the **RS-485 D+ (TX+)** port of the PTZ block on the rear panel.
2. Connect the Receive Cable to the **RS-485 D- (TX-)** port of the PTZ block on the rear panel.
3. Connect the video cable to a BNC port (usually channel 1).
4. Open the **SYSTEM SETUP** menu and select **CAMERA**.
5. Select **PTZ SETUP** and configure the **ADDRESS**, **PROTOCOL**, and **BAUD RATE** of your PTZ camera.

**NOTE:** The PTZ camera settings depend on the type of PTZ camera. Please refer to the specific camera manual for your brand and model of PTZ camera.

6. Select **APPLY** and press **ENTER** to save your settings.

**NOTE:** For details on controlling your PTZ camera, see "PTZ" on page 15.

## APPENDIX E: CONNECTING ADDITIONAL EXTERNAL MONITORS

Along with VGA output, you can connect secondary monitors to the Monitor Out port (BNC) port on the rear panel of the system.

**NOTE:** Monitor Out displays the exact on-screen display of the system.

Use the Spot port (BNC) to use the Spot Out function. Spot Out displays connected cameras on the system in a sequence.

**NOTE:** For details on configuring the Spot Out sequence, see “Spot Out” on page 37.

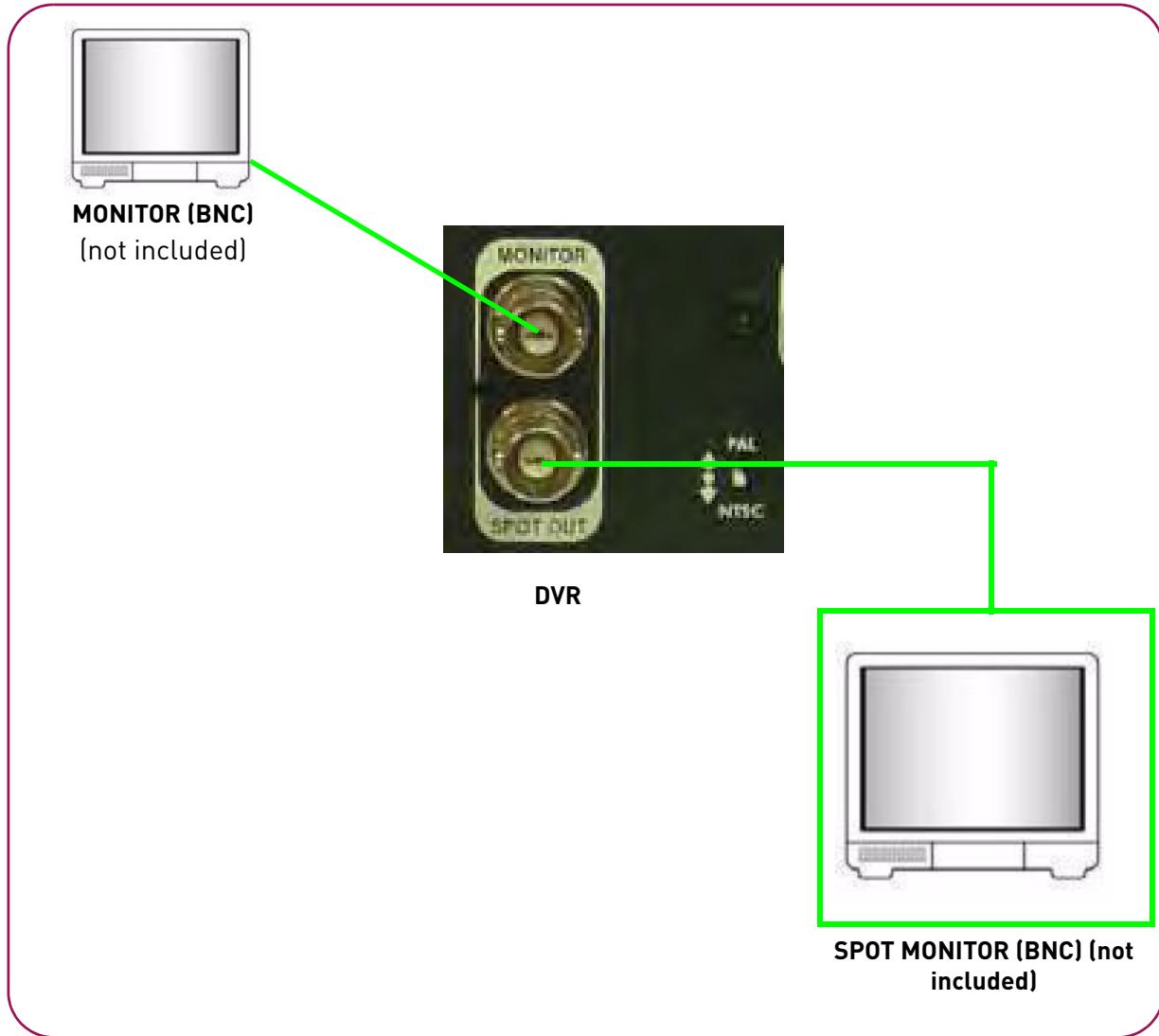


Figure 40.1 External monitors

## APPENDIX F: CONNECTING MOTION / ALARM DEVICES

You can also connect external alarm input and alarm output devices to the system (i.e. motion sensors, door/window sensors). Use a motion detector or sensor to send a signal to the system to begin camera viewing and recording on the matching camera channel (when enabled in the Menu); simultaneously, the system sends an output signal to a device such as an alarm or siren.

To connect an external sensor/alarm to the system:

1. Connect the Signal Cable to the desired **Channel number + port** in the ALARM IN block.
2. Connect the Ground cable to the **Ground port (G)** in the ALARM IN block.
3. Open the **SYSTEM SETUP** menu and select **EVENT/SENSOR**.
4. Select **ALARM INPUT / ALARM OUTPUT** and configure the following:
  - **OPERATION:** Select **ENABLE** for the corresponding alarm channel
  - **TYPE:** Select **N.C.** (Normally closed) or **N.O.** (normally open) depending on your alarm/sensor setup. Select **APPLY** and press **ENTER** to save your settings.

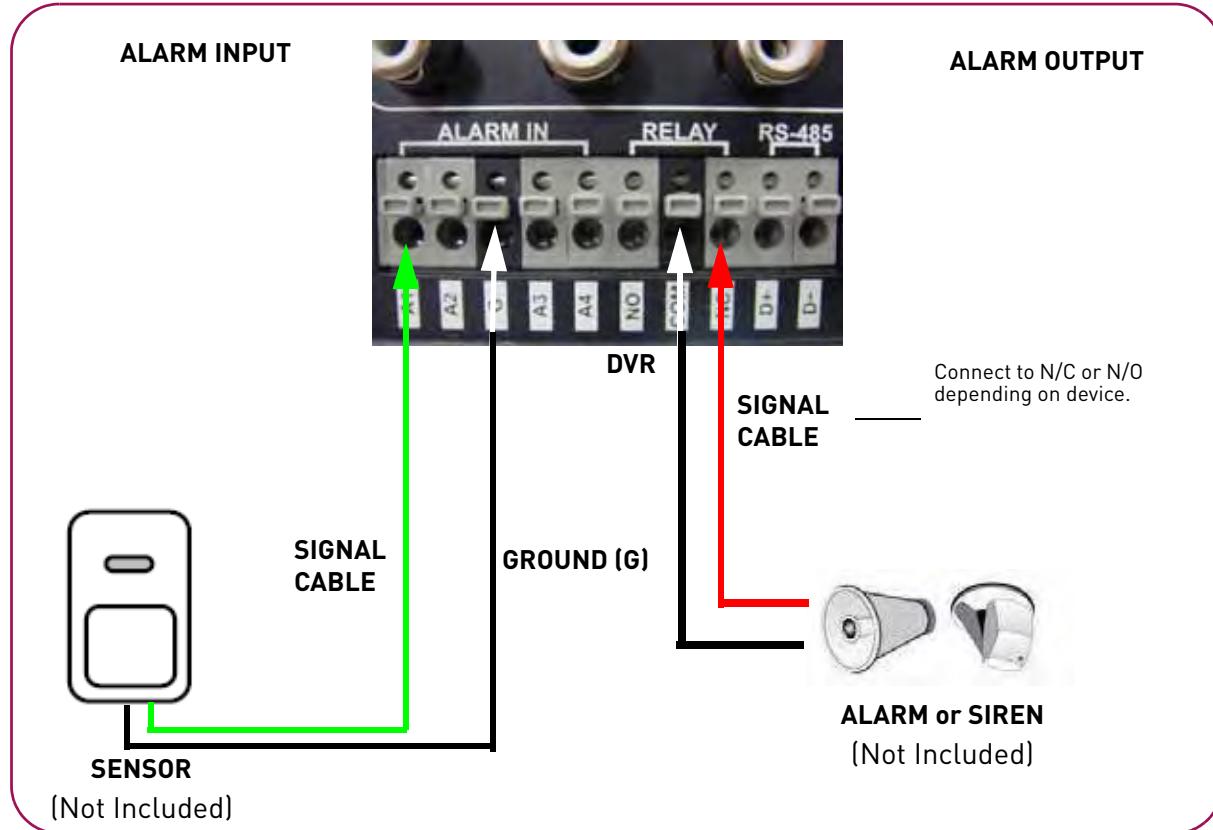


Figure 40.2 Alarm input/output

## APPENDIX G: FULL CONNECTIVITY DIAGRAM

The following diagram outlines a general set of connections available with the DVR.

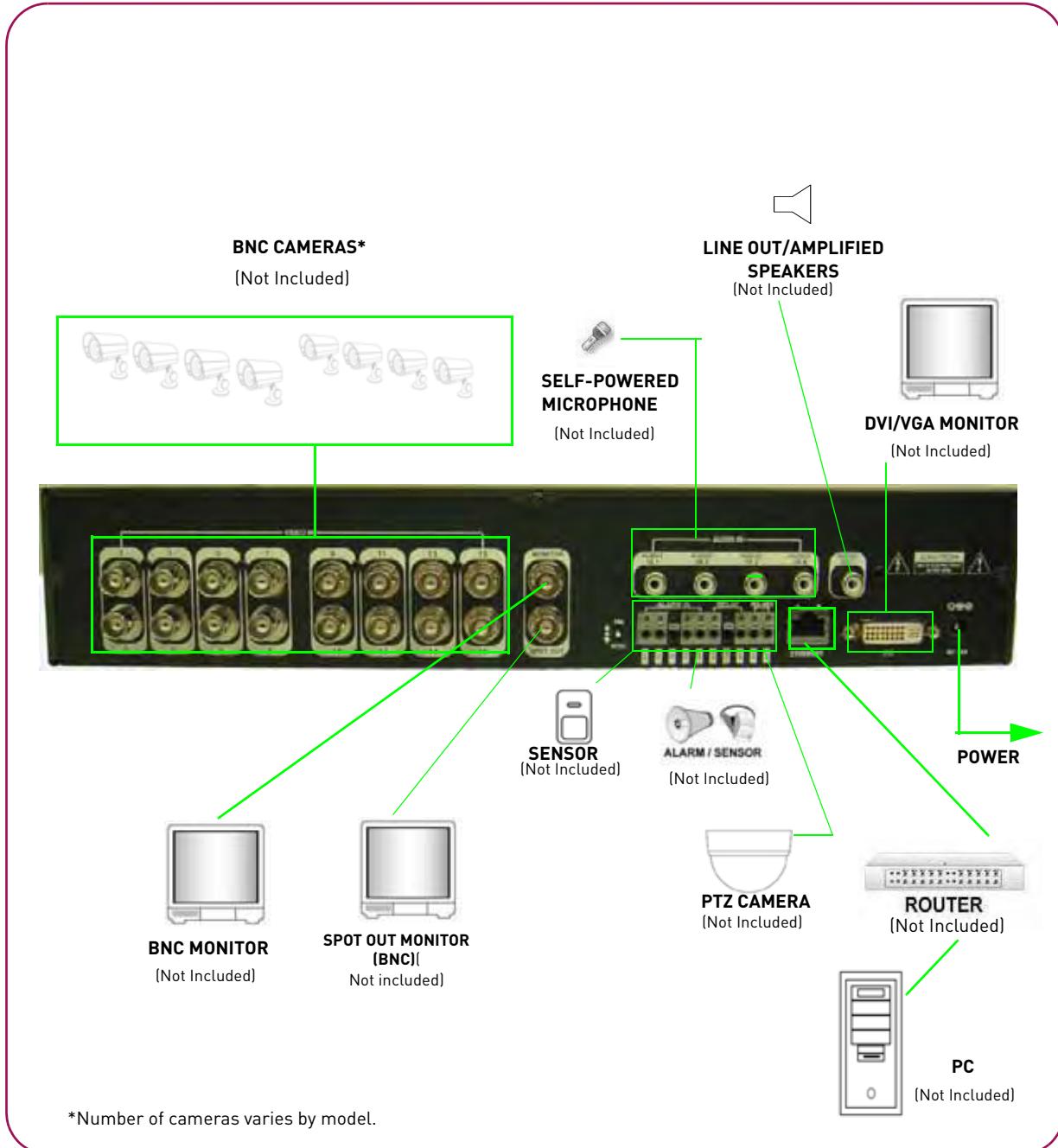


Figure 40.3 Connecting a PTZ camera (not included)

## APPENDIX H: REMOVING/ ADDING A HARD DRIVE

The system comes with a pre-installed 3.5" SATA hard drive. Make sure that the system is *OFF* and the power cable has been disconnected before changing the hard drive. You can add a maximum of two hard drives.

### Removing the Hard Drive

To remove the hard drive:

1. Remove the **two short black screws** on the side panels of the housing and the **three short black screws** on the rear panel. Keep these sets of screws separate.

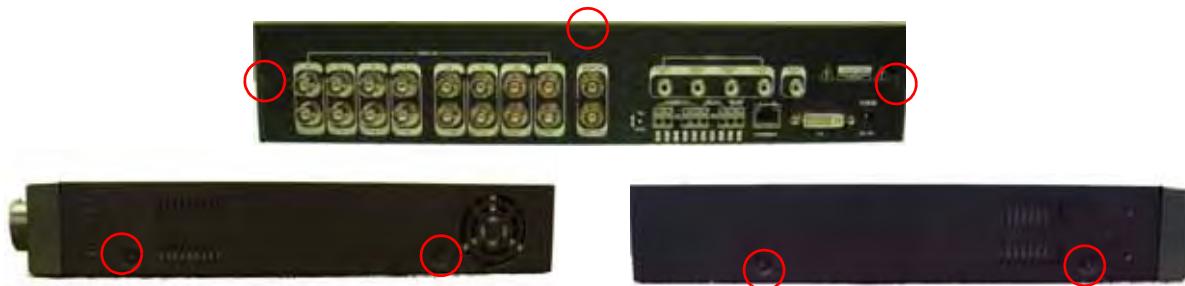


Figure 41.0 Remove the screws on the side panels and the rear panel. Gently slide cover off.

2. Carefully slide the **cover** away from the front panel and lift off from the housing.



Figure 41.1 Gently remove cover. Be careful of sharp edges on the cover.

3. Disconnect the **SATA power and data cables** from the hard drive(s). Pinch the metal connectors to unplug the SATA power and data cables.



Figure 41.2 Unplug the SATA data and power cable from the hard drive.

4. Remove the **four black screws** at the bottom of the mounting bracket(s). Keep these sets of screws separate.

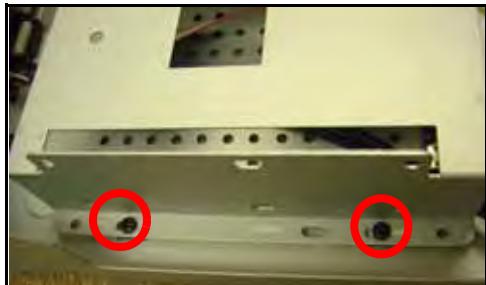
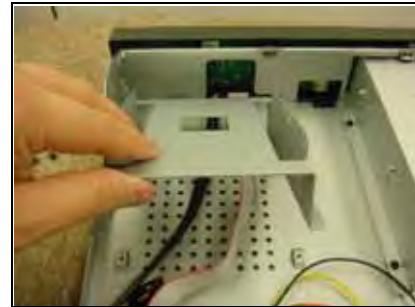


Figure 41.3 Unscrew the four black short screws on the hard drive bracket.



5. Carefully remove the **mounting bracket** from the housing.
6. Remove the **chrome screws** from the sides of the mounting bracket and remove the hard drive.



Figure 41.4 Unscrew the four chrome screws on the hard drive bracket.

## Adding the Hard Drive

You must format the hard drive after you install it. For details on how to format a hard drive, see “Formatting the Hard Drive” on page 110.

**Prerequisite:** Remove the system cover, and disconnect and remove the old hard drive.

To add a new hard drive:

1. Carefully place the **new hard drive** in the mounting bracket and secure with the four chrome screws.

**NOTE:** Each mounting bracket can hold two HDDs (top and bottom).

**NOTE:** The DVR includes a ONE (1) hard drive. The second hard drive is optional.



Figure 41.5 Insert the new HDD and secure with screws

2. Place the **mounting bracket** (with hard drive) in the housing, securing the bracket with the four black screws.  
**NOTE:** You may need to reposition the mounting bracket slightly to secure all four screws to the mounting posts at the base of the housing.
3. Connect the **SATA power and data cables**.



Figure 41.6 Connect the SATA power and data cables

4. Replace the **cover**—slide the cover towards the front panel and carefully lower over the housing. Make sure all sides are flush with the front panel.
5. Replace the **three short black screws** on the rear panel and **two short black screws** on the side panels.
6. Following the prompt, please **format** the new hard drive(s). See “Formatting the Hard Drive” on page 110.

## Formatting the Hard Drive

**ATTENTION:** Formatting the HDD erases *all data* on the hard disk. *This step cannot be undone.* System settings will not be erased.



Figure 42.0 Disk Management menu

To format the hard disk:

1. From the **SYSTEM SETUP** menu, click **DISK MANAGE**.
2. Click the **DISK MANAGEMENT** tab (default).
3. Under **FORMAT**, click **START**.
4. Log in with your **administrator user name** and **password** (by default, user name: **ADMIN**; password: **1234**).
5. From the prompt, click **OK**. Formatting begins. This could take several moments depending on the size of the hard drive(s).



Figure 42.1 Click OK to begin formatting

6. Once formatting is complete, click **APPLY**.
7. Close any remaining windows to exit.

**NOTE:** Restart is not required.

## APPENDIX I: INSTALLING AN OPTICAL DRIVE

Certain models of the system may require you to install a DVD optical drive for backup purposes (optional). Make sure that the system is *OFF* and the power cable has been disconnected before changing the hard drive.

### Parts required:

- SATA DVD-/+RW Drive (not included)

## Removing the Cover

To remove the cover:

1. Remove the **two short black screws** on the side panels of the housing and the **three short black screws** on the rear panel. Keep these sets of screws separate.



Remove the screws on the side panels and the rear panel. Gently slide cover off.

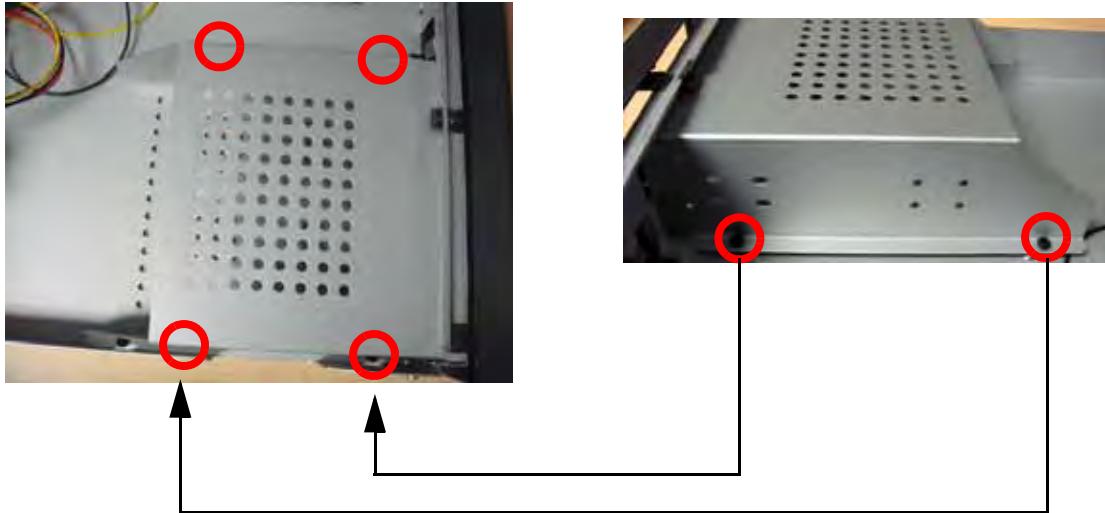
2. Carefully slide the **cover** away from the front panel and lift off from the housing.



Gently remove cover. Be careful of sharp edges on the cover.

## Installing The Optical Drive

1. Remove the four (4) screws on the mounting bracket.



2. Remove the plastic plate that covers the optical drive bay.



3. Mount the DVD-/+RW drive onto the mounting bracket.

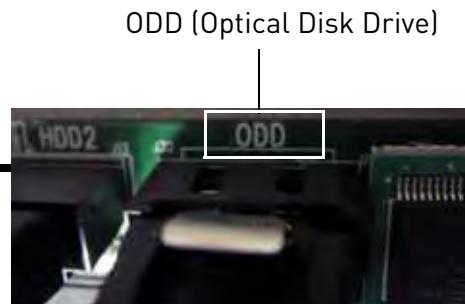
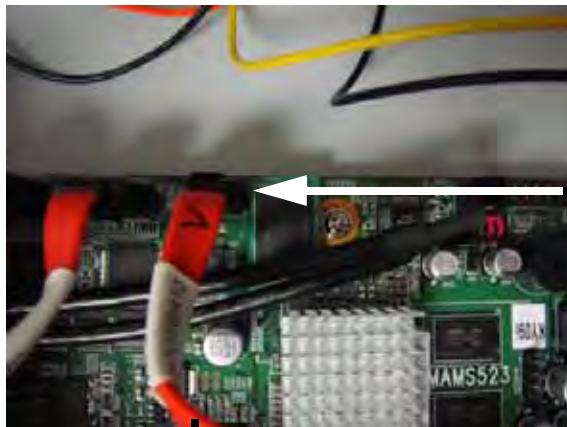


- Secure the mounting bracket with the DVD-/+RW drive onto the system chassis with the four (4) screws.

**NOTE:** Make sure the DVD-/+RW drive is flush with the front panel of the system.



- Plug in the SATA cable from the port marked "ODD" into the SATA DATA port on the DVD-/+RW drive.



Plug SATA cable from the "ODD" port into the data port on the DVD-/+RW.



- Plug in the power SATA cable into the power port.



**NOTE:** Connectors should "click" in place.

- Replace the system cover and screws.

## APPENDIX J: CONNECTING AUDIO DEVICES

You can connect up to four audio capable cameras or self-powered microphones to the system. Use the Line Out port to connect the system to amplified speakers\*.

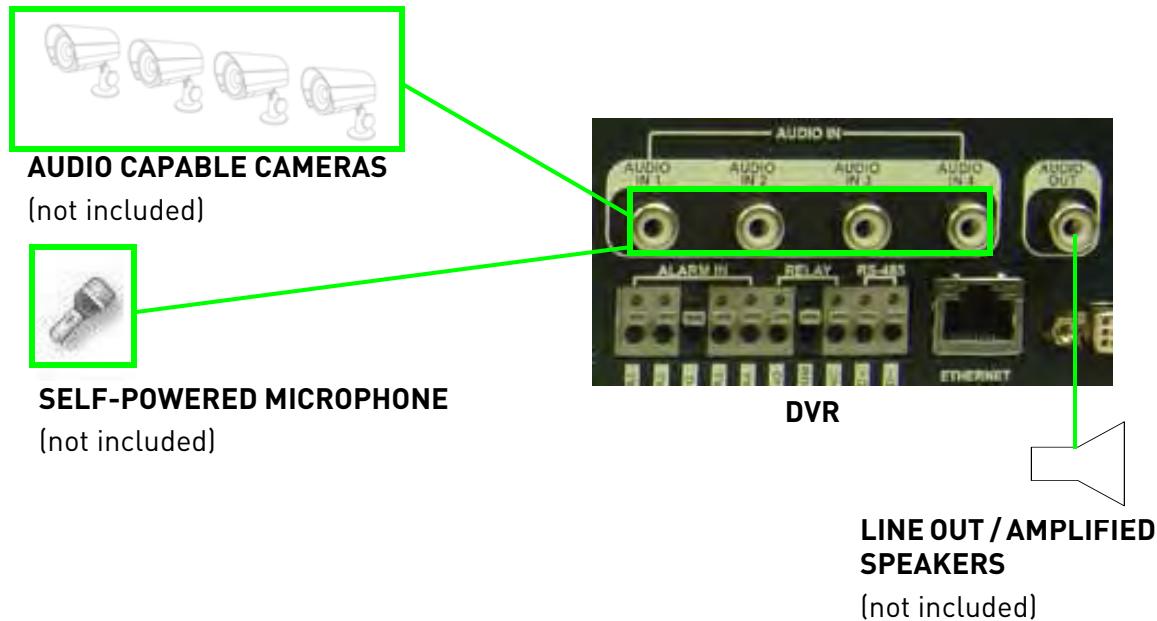


Figure 43.0 Click OK to begin formatting

To connect audio devices:

1. Connect the audio cable (RCA) from an audio capable camera to the **AUDIO IN** port(s) on the rear panel of the system.
2. Connect a line out/audio cable from amplified speakers (or other audio device) to the **AUDIO OUT** port.
3. Open the MAIN MENU and select **SYSTEM SETUP**. If necessary, login with your user name and password (by default, user name: ADMIN; password: 1234).
4. Select **SOUND** and press **ENTER**.
5. Configure **Live Audio** and the **Default Audio** channel.
6. Select **APPLY** and press **ENTER** to save your settings.
7. Open the **RECORD SETUP** menu and select **CONTINUOUS/MOTION RECORDING**.
8. Enable audio recording for each corresponding channel.
9. Select **APPLY** and press **ENTER** to save your settings.

\*Audio capable cameras, self-powered microphones, and amplified speakers are not included with the system.

# APPENDIX K: REMOTE VIEWING ON MOBILE DEVICES

You can access your DVR from your mobile device such as an iPhone™ or a Blackberry™.

## *Before You Begin*



Data charges may appear on your phone bill as a result of browsing streaming video.



Always check with your cell phone carrier on how your data plan works. Digimerge is not responsible for data plan fees that may result.

You must enable DDNS on your DVR and set up a DDNS account before you can begin viewing video on your mobile device.

- To set enable DDNS on your DVR, see “Appendix C: Setting Up DDNS Service” on page 99.
- To set up a DDNS account on your DVR, see “How Do I Enable DDNS On My System?” on page 100.

## **Viewing Your DVR From Your iPhone**

Once you have enabled DDNS on your DVR, and set up a DDNS address, you can begin live viewing from your iPhone.

To begin live viewing on your iPhone:

1. Touch the Safari icon (  ) to start web browsing.
2. In the address bar, enter in your DDNS address in full (For example `tomsmith.digimerge.net`).
3. Touch the blue **GO** button on the bottom-right corner of the screen. The Mobile View window opens (Figure 44.0).
4. Touch the **Start Live** button to connect to your DVR. A channel of your DVR appears in the Viewing window.



Figure 44.0 Mobile View window.

5. Touch the channel drop-down menu access a list of channels (Figure 44.1).



Figure 44.1 Channel list view. Note that Auto refers to the auto-refresh of images. Leave this option selected.

6. Touch a channel (ie. **02 CH**) to switch channels. A checkmark appears beside the selected channel.
7. Touch the blue **Done** button to return to normal view.

## Viewing Your DVR From Your 3G BlackBerry

To begin live viewing from your BlackBerry:

1. Open your web browser, and enter in the DDNS address of your DVR. The Mobile Viewer page opens.



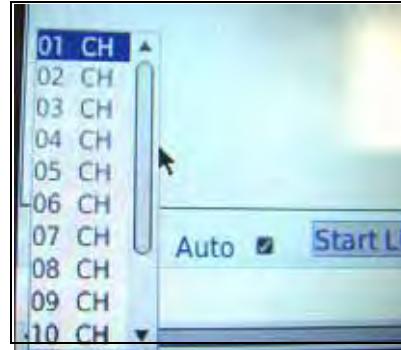
Figure 44.2 Mobile View page on the BlackBerry.

2. Click the **Start Live** button to connect to your DVR.

3. Enter in your user name and password when the authentication window appears (Figure 44.2). Click **OK**.
4. Click the channel list drop-down menu to view a list of DVR channels.



Channel list drop-down menu



Close up view of channel list.

Figure 44.2 Channel list drop-down menu.

**NOTE:** The **Auto** checkbox refers to auto-refreshing of images. Leave this option selected.

# TROUBLESHOOTING

When a malfunction occurs, it may not be serious and can be corrected easily. The following describes the most common problems and solutions. Please refer to the following before calling Digimerge Technical Support:

Error	Possible Causes	Solutions
• DVR is not receiving power, or is not powering up	• Power cable is loose or is unplugged	<ul style="list-style-type: none"> <li>• Confirm that all cables are connected correctly</li> <li>• Confirm that the power cable is securely connected to the back of the unit</li> </ul>
	• Cables are connected, but DVR unit is not receiving sufficient power	<ul style="list-style-type: none"> <li>• Confirm that the unit is powered on (LED indicators on the front should be ON)</li> <li>• If the unit is connected through a power bar or surge protector, try bypassing the bar and connecting the power directly to the wall outlet</li> <li>• Confirm that there is power at the outlet: <ul style="list-style-type: none"> <li>• Connecting the power cable to another outlet</li> <li>• Test the outlet with another plugged device (such as an electric calculator or phone charger)</li> </ul> </li> </ul>
• Remote control is not detected by the system	• Batteries in the remote control are drained	<ul style="list-style-type: none"> <li>• Install two fresh "AAA" batteries in the remote control</li> </ul>
	• There are no batteries in the remote control	
• Hard drive is not detected by the system	• Hard drive cables are loose or not properly connected	<ul style="list-style-type: none"> <li>• Remove the housing and check that hard drive cables are firmly connected</li> </ul>
	• Hard drive has not been initialized (formatted) by the system	<ul style="list-style-type: none"> <li>• From the Main Menu, select System Setup&gt;Disk Manage&gt;Format and then click Start.</li> </ul> <p><b>ATTENTION:</b> Formatting erases all video data on the hard drive</p>
Hard drive is full (0%) and the unit is no longer recording	• There is no hard drive in the system	<ul style="list-style-type: none"> <li>• Open the housing and install a 3.5" SATA hard drive</li> </ul>
	• Overwrite is not enabled	<ul style="list-style-type: none"> <li>• From the Main Menu, select System Setup&gt;Disk Manage&gt;Overwrite and select ON. This enables the system to continuously record by overwriting data once the hard drive is full</li> </ul>

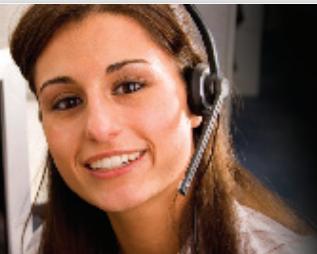
## Troubleshooting (cont'd.)

Error	Possible Causes	Solutions
Mouse not detected by system	<ul style="list-style-type: none"> <li>• Mouse cable is not firmly connected to the system</li> <li>• Mouse is not connected to the system</li> <li>• System needs to be reset</li> </ul>	<ul style="list-style-type: none"> <li>• Firmly connect the mouse cable to the USB port on the front panel</li> <li>• Turn the system OFF (press Power button on the front panel). Firmly connect a mouse to any of the USB ports on the system; press the Power button again to turn the system ON</li> </ul>
• There is no picture on selected channels / camera picture is not being displayed	<ul style="list-style-type: none"> <li>• Camera cables are loose or have become disconnected</li> </ul>	<ul style="list-style-type: none"> <li>• Check the camera video cable and connections</li> <li>• Disconnect and reconnect the cable at the DVR and at the Camera</li> <li>• Try moving the camera to another channel or use another cable</li> </ul>
• The image on the DVR appears, but does not have sound	<ul style="list-style-type: none"> <li>• Audio cables are loose or have been disconnected</li> <li>• Live Audio is disabled</li> <li>• Audio is associated with the wrong video channel</li> </ul>	<ul style="list-style-type: none"> <li>• Check the AUDIO connections to the DVR</li> <li>• From the Main Menu, select System Setup&gt;Sound&gt;Live Audio and select ON</li> <li>• The default audio channel is channel 1—connect the audio capable camera to channel 1 or select the correct default audio channel (CH1~4) from the Sound menu</li> </ul>
• I can't log in to the Web Client	<ul style="list-style-type: none"> <li>• You have the wrong port number</li> <li>• You have the wrong user name and password</li> </ul>	<ul style="list-style-type: none"> <li>• Enter the system's Web Serverport—by default, 80 &amp; 554</li> <li>• If you have customized the Web Server Port, you may need to port forward the new port number on your router</li> <li>• Log in as the administrator (by default, user name: <b>ADMIN</b>; password: <b>1234</b>)</li> <li>• The system Admin may have disabled Remote Agent access for the Manager or User profiles; have the Admin grant you access to Remote Agent</li> </ul>
• My system does not seem to be recording	<ul style="list-style-type: none"> <li>• Recording mode may be set to "None"</li> <li>• Motion Recording may be enabled</li> </ul>	<ul style="list-style-type: none"> <li>• From the Main Menu select Record Setup&gt;Continuous Motion Recording&gt;<b>Activation</b></li> <li>• During Motion Recording, the system ONLY records when motion is detected by one of the cameras; enable Continuous Recording, or Continuous + Motion Recording</li> </ul>





# DIGIMERGE



## NEED HELP?

***Please make sure to visit our website [www.digimerge.com](http://www.digimerge.com) to receive product updates and information.***

### **3 Easy Ways To Contact Us**



#### **ONLINE:**

Product support is available 24/7 including product information, user manuals, quick start up guides and FAQ's at [www.digimerge.com](http://www.digimerge.com)



#### **BY EMAIL:**

Technical support (for technical/installation issues)  
[tech@digimerge.com](mailto:tech@digimerge.com)



#### **BY PHONE:**

North America: 1-866-344-4674

Technical support (for technical/installation issues)

Press option 2 for tech support

Mon-Fri 8.30 am to 7.00pm EST

**We welcome your feedback at  
[info@digimerge.com](mailto:info@digimerge.com)**

**For more information, visit  
[www.digimerge.com](http://www.digimerge.com)**



## LIMITED WARRANTY



### Digimerge Digital Video Recorder (DVR) – 5/3/1 Year Limited Hardware Warranty

Updated 08.04.09

**Warranty:** Subject to the exclusions, limitations and exceptions, Digimerge warrants to the initial end-user purchaser that this hardware product is free from manufacturing defects in material and workmanship under normal use for a period of three (3) years from the documented date of purchase. Digimerge warrants the security certified Seagate SV35 Series Hard Disc Drive (HDD) for a period of (5) years from the documented date of purchase.

#### DVR Warranty Details:

The three (3) year warranty period consists of:

- One (1) year over-the-counter replacement warranty covering parts and labor
- Two (2) additional years of repair depot warranty covering parts and labor with proof of RA issued by Digimerge tech support

Exceptions to the above warranty are:

- DVR components including, but not limited to, moving parts, motors, fans, removable flash memory. These are warranted for a one (1) year period.
- Data loss – end users are recommended to back up the content of the hard drive on a regular basis.
- Data recovery, consequential damages, incidental damages and costs related to removal and installation of the hard drive are not covered under this warranty and are not part of the repair or exchange process.

**Software & Consumables:** All software, accompanying documentation and consumables (including but not limited to fuses and batteries) provided with or as part of the product are furnished AS IS, and are excluded from warranty coverage. Digimerge is not obligated to provide the end-user with a substitute product during the warranty period or at any time.

**NOTE:** Products are subject to continuous improvement. DIGIMERGE Technologies Inc. and its subsidiaries reserve the right to modify product design, specifications and prices, without notice and without incurring any obligation. Software and firmware are subject to updates from time to time.

For valid warranty claims made during the warranty period, upon proper **proof of purchase** (which is defined as a “valid form of a bill of sale or receipt from an authorized retailer or distributor showing the original date of purchase”), defective products will, at the sole discretion of Digimerge, be repaired or replaced with equal or better product in terms of hardware features without charge if all the conditions set forth in this warranty are met. Any products repaired or replaced within the warranty period, shall be warranted by Digimerge to the initial end-user purchaser for 90 days from the return shipment date, or the remainder of the warranty term, whichever is longer. Repairs are warranted for 90 days outside the original warranty period. Products and parts, at Digimerge’s sole discretion, may be replaced with new or refurbished items, and the products and parts replaced become the property of Digimerge. Product returned to Digimerge must be properly packaged in its original packaging (or packaging providing the product with protection equivalent to the original packaging) and sent, with the postage charges prepaid via a shipping method that provides for tracking of your package, to the address provided at the time the Return Authorization was requested. The customer is responsible for all shipping costs associated with the return of the defective products for warranty service to Digimerge warranty/repair depot facilities. Products will be returned to the end-user freight prepaid. Digimerge reserves the right to replace the original hard drive with an equivalent one.

**Exclusions and Limitations:** Any of the following will void this warranty:

1. Installation or use of the product other than strictly in accordance with the instructions contained in the product's instruction manual;
2. If the product is subjected to operating conditions (including atmospheric, moisture and humidity conditions) outside of the acceptable conditions specified in the product's instruction manual;
3. If the product is subjected to misuse (not adhering to instructions supplied with the product), negligence, modification (of hardware, firmware or software) or abuse;
4. If the product is subjected to electrical short circuits or transients, accident, fire, flood or Acts of God;
5. Adjustment, maintenance or repair of the product other than in accordance with Digimerge approved procedures; and
6. Use of replacement parts other than those specified by Digimerge.
7. If the products original identification (trademark, serial number, model number) markings have been removed, defaced or altered.

DIGIMERGE MAKES NO CLAIMS OR WARRANTIES OF ANY KIND WHATSOEVER REGARDING THE PRODUCT'S ABILITY OR EFFECTIVENESS IN PREVENTING OR REDUCING THE RISK OF, OR DAMAGES RESULTING FROM, LOSS OR THEFT OF PROPERTY OR PERSONAL INJURY. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. DIGIMERGE SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY KIND OR CHARACTER, INCLUDING, WITHOUT LIMITATION, PERSONAL INJURY, LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS OR OTHER BENEFITS, OR CLAIMS AGAINST THE PURCHASER BY ANY THIRD PERSON, EVEN IF DIGIMERGE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

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#### **Warranty and Non-Warranty Service:**

Warranty service can be received by contacting your Digimerge dealer (during the warranty period). The dealer is required to first contact Digimerge Technical Support for assistance. In the event the problem cannot be resolved over the phone or via email, Digimerge will advise to return the product, at customer's expense, for repair or replacement. Upon receipt of the defective product, Digimerge will send a repaired or replacement product at Digimerge's expense to the customer. Dealer should send product to:

#### **In United States:**

Digimerge Returns  
C/O Russell A. Farrow  
15 Lawrence Bell Drive  
Amherst, NY  
14221

#### **In Canada:**

Digimerge Technologies Inc.,  
Attention: Repair Department,  
250 Royal Crest Court,  
Markham, Ontario, Canada,  
L3R 3S1

**Out of warranty service:** Please visit our web site ([www.digimerge.com](http://www.digimerge.com)) for the name and location of the Digimerge authorized service centers.

# IT'S ALL ON THE WEB!

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