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PROFESSIONAL INTEGRATED SURVEILLANCE SYSTEM

22" LCD MONITOR WITH INTEGRATED 16-CHANNEL
DIGITAL VIDEO RECORDER & MULTI-FUNCTION DISPLAY

INSTRUCTION MANUAL

English Version 2.0



MODELS:
L22WD1600 SERIES



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

This manual refers to the following models:

- L22WD1600 Series

Lorex may introduce new model numbers for the above series.

To learn more about the this product, and to learn about our complete range of accessory products, please visit our website at:

www.lorexcctv.com



CAUTION



RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RICK OF ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead 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.

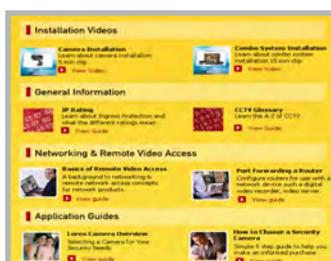
BEFORE YOU START

THIS PRODUCT MAY REQUIRE PROFESSIONAL INSTALLATION

LOREX IS COMMITTED TO FULFILLING YOUR SECURITY NEEDS



- We have developed user friendly products and documentation. Please read the Quick Start Guide and User Manual before you install this product.



- Consumer Guides and Video Tutorials are available on our web site at www.lorexcctv.com/support



- If you require further installation assistance, please visit www.lorexcctv.com/installation or contact a professional installer.



- Please refer to the “Need Help” insert for technical support and customer care information.



- Please note that once the components of this product have been unsealed, you cannot return this product directly to the store without the original packaging.

AVANT DE COMMENCER

ANTES DE EMPEZAR

CE PRODUIT POURRAIT EXIGER UNE INSTALLATION PROFESSIONNELLE

ESTE PRODUCTO PUEDE EXIGIR UNA INSTALACIÓN PROFESIONAL

LOREX S'ENGAGE À SATISFAIRE VOS BESOINS SÉCURITAIRES

- Veuillez lire le guide de démarrage rapide et le mode d'emploi avant d'installer ce produit.
- Les guides du consommateur et les séances de tutorat vidéo sont disponibles sur l'Internet en visitant www.lorexcctv.com/support
- Si vous avez besoin de l'aide pour l'installation, veuillez visiter www.lorexcctv.com/installation ou contactez un spécialiste en installation
- Veuillez référer à l'insert "Need Help" pour obtenir de l'information sur le service à la clientèle et le support technique
- Veuillez constater qu'une fois que les composants de ce produit ont été retirés de l'emballage, vous ne pourrez plus retourner ce produit directement au magasin.

LOREX SE COMPROMETE A SATISFACER SUS NECESIDADES EN SEGURIDAD

- Favor de leer la guía de instalación rápida y la guía del usuario antes de instalar este producto.
- Puede conseguir las guías del consumidor y los cursos en enseñanza video sobre el Internet visitando www.lorexcctv.com/support
- Si necesita ayuda para la instalación, visite www.lorexcctv.com/installation o contacte un especialista en instalaciones
- Favor de referir al documento "Need Help" para obtener información acerca del servicio al cliente y al soporte técnico
- Favor de notar que una vez que los componentes de este producto han sido removidos del embalaje, no podrá devolver este producto directamente a la tienda




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NEED HELP?

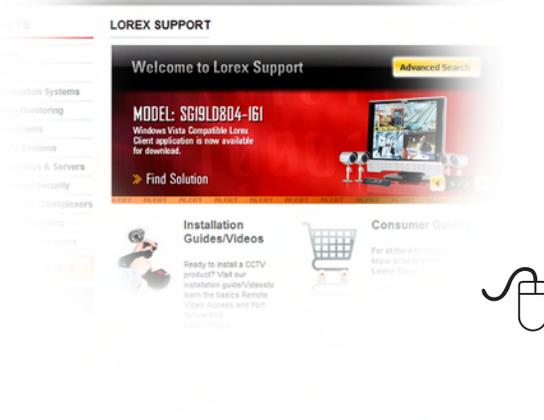


CONTACT US FIRST

DO NOT RETURN THIS PRODUCT TO THE STORE

Please make sure to register your product at www.lorexcctv.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.lorexcctv.com/support

To order accessories, visit www.lorexcctv.com

By Email:

Technical Support (for technical/installation issues)
support@lorexcorp.com

Customer Care (for warranty and accessory sales)
customerservice@lorexcorp.com

Customer Feedback
info@lorexcorp.com

By Phone:

NORTH AMERICA: 1-888-425-6739 (1-888-42-LOREX)

MEXICO: 1-800-514-6739

INTERNATIONAL: +800-425-6739-0

(Example: From the UK, dial 00 instead of +)

Technical Support (for technical/installation issues)
Press option 1 for English, and then press option 1

OR

Customer Care (for warranty and accessory sales)
Press option 1 for English, and then press options 2 to 5





NECESITA AYUDA

COMUNÍQUESE PRIMERO CON NOSOTROS



VOUS AVEZ BESOIN D'AIDE? CONTACTEZ-NOUS D'ABORD

NO DEVUELVA ESTE PRODUCTO A LA TIENDA

NE RETOURNEZ PAS CE PRODUIT AU MAGASIN

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Veillez veiller à enregistrer votre produit à www.lorexcctv.com/registration pour recevoir des mises à jour et l'information de produit

3 MANERAS SENCILLAS DE COMUNICARSE CON NOSOTROS:

3 FAÇONS FACILES DE NOUS CONTACTER:



En línea:

apoyo al producto disponible 24/7 incluyendo información del producto, manuales para el usuario, guías de inicio rápido y preguntas más frecuentes en

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Para colocar pedidos de accesorios, visite

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En ligne:

le support des produits est disponible 24 heures sur 24, 7 jours sur 7, y compris les informations sur les produits, les guides de l'utilisateur, les guides de démarrage rapide et les foires à questions

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Pour commander des accessoires, visitez

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Por Correo Electrónico:

soporte técnico (para asuntos técnicos/la instalación)

support@lorexcorp.com

0

servicio al cliente (respecto a la garantía y a la venta de accesorios)

customerservice@lorexcorp.com



Par Courriel:

support technique (pour les questions techniques et d'installation) **support@lorexcorp.com**

OU

service à la clientèle (pour les questions de garantie et les ventes d'accessoires)

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MEXICO: 1-800-514-6739

INTERNACIONAL: +800-425-6739-0

(Ejemplo: Desde el Reino Unido, marque el 00 en lugar del +)

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oprima la opción 1 para inglés y luego oprima la opción 1

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servicio al cliente (respecto a la garantía y a la venta de accesorios) oprima la opción 1 para inglés y luego oprima las opciones 2 A 5

sus opiniones son bienvenidas en

info@lorexcorp.com

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MEXICO: 1-800-514-6739

INTERNATIONAL: +800-425-6739-0

(Exemple: À partir du Royaume-Uni, composez 00 au lieu de +)

support technique (pour les questions techniques et d'installation) appuyez sur l'option 1 pour l'anglais, et ensuite sur l'option 1

OU

service à la clientèle (pour les questions de garantie et les ventes d'accessoires) appuyez sur l'option 1 pour l'anglais, et ensuite sur les options 2 à 5

nous serions heureux de recevoir vos

commentaires à info@lorexcorp.com pour

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Important Safeguards

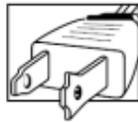
In addition to the careful attention devoted to quality standards in the manufacture process of your video product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to assure your enjoyment and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

Installation

1. **Read and Follow Instructions** - All the safety and operating instructions should be read before the video product is operated. Follow all operating instructions.

2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.

3. **Heed Warnings** - Comply with all warnings on the video product and in the operating instructions.



4. **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

5. **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.

6. **Overloading** - Do not overload wall outlets of 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.

7. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they

8. **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.

9. **Attachments** - Do not use attachments unless recommended by the video product manufacturer as they may cause a hazard.

10. **Camera Extension Cables** - Check the rating of your extension cable(s) to verify compliance with your local authority regulations prior to installation.

11. **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.



12. **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.
 - A. When the power supply cord or plug is damaged.
 - B. If liquid has been spilled or objects have fallen into the video product.
 - C. If the video product has been exposed to rain or water.
 - D. 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.
 - E. If the video product has been dropped or the cabinet has been damaged.
 - F. 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 cart 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 B NOTICE

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not in-stalled and used in accordance with the instruction, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment on and off), the user is encouraged to try to correct the interference by one or more of the following measures:

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

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 this manual's guideline 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

Monitor

- 22" widescreen LCD with user selectable aspect ratio (Wide 16:9, Standard 4:3)
- Professional Grade High Resolution (1680x1050) glossy LCD panel
- VGA Input: use your LCD Display as a PC monitor
- USB Picture Frame feature: display digital pictures from a USB flash drive
- Component Video input (YPbPr): connect a DVD player, Digital Cable or Satellite receiver
- Spot Video Out supports a connection to another monitor to display video in a different location (e.g. Public View Monitor)
- Multiple control options; front panel buttons, remote control, mouse, remote software
- Trilingual On-Screen Display (English, Spanish, French)
- Video Tutorial for camera installation and system set up
- Screen saver for energy efficiency
- Wall mountable (VESA standard)
- Stand with cable management solution
- Environmentally friendly, recyclable packaging material

DVR

- 16 channels with Pentaplex operation: View, Record, Playback, Back Up & Remotely Control the system simultaneously
- MPEG-4 Digital Video Compression: small file sizes without compromising video quality
- Recording Frames Per Second (FPS): 240/200 (NTSC/PAL) @ 352X240
- Recording Resolution: 704x480, 704x240, 352x240(NTSC), 704x576, 704x288, 352x288(PAL)
- Custom recording for each camera
- Covert Camera: record without displaying camera image
- Continuous Recording with Motion Event logging for easy event searching
- Selectable 4-channel audio recording & programmable motion detection
- Pre-Event Recording of a preset amount of time before motion triggers the recording to see activities leading up to an event
- SATA Hard Drive with 100% duty cycle for optimal performance in the commercial video security market—expandable up to 750GB
- S.M.A.R.T HDD Support (Self-Monitoring Analysis and Reporting Technology): Auto Detection / Recovery to ensure the HDD is functioning properly at all times
- Supports external USB: Hard Drive, Optical Drive (DVD-RW, CD-RW) and Flash Drive
- Scheduled backup to an external USB storage and Network Storage Using FTP
- Watermarking of video files to encrypt the data
- 8 programmable Alarm Inputs, 1 Relay Alarm output
- Pan/Tilt/Zoom Camera Control: RS-485 interface
- Network Protocol: TCP/IP, DDNS and Web

Table of Contents

Getting Started	1
Tips & Tricks - Useful System Information	2
System Loading Sequence	4
Monitor Display Shutoff	4
System Shutdown	4
Front Panel	5
Front Panel	6
Side Panel - USB Ports	6
Rear Panel	7
Rear Panel	8
Using the Octopus Cable	9
Installing Cameras	10
Installation Warnings:	10
Camera Stand Installation:	10
Connecting DIN Cameras	11
Connecting BNC Cameras	12
Camera Connection Diagram	12
Multi-Function Display: Monitor Modes	13
DVR Mode (Mode 1)	14
DVR Mode - Remote Control Usage	15
Front Panel Navigation Controls	16
Mouse Control	16
Mouse Controls	16
On-Screen Display Menu	17
System Display	18
Network Connectivity Indicators	18
Camera Display Modes	19
Zoom Mode	19
PIP Mode (Reverse PIP)	20
PTZ (Pan/Tilt/Zoom) & Focus Controls	20
Menu Navigation Controls & Tips	21
Virtual Keyboard Control	21
Active Option Indicator	21
Volume Adjustment	21
System Setup Controls	22
Main Menu	22
Display Menu	23
OSD (On-Screen Display)	23
MONITOR	24
SEQUENCE	24
Modifying a Sequence	25
SEQUENCE SETUP - REMOTE	25
SEQUENCE SETUP - MOUSE	26
SPOT-OUT	27
SCREENSAVER	27
Camera Menu	28
CAMERA TITLE	28

COLOR SETUP	29
PTZ SETUP	29
PTZ PROPERTIES	30
MOTION SENSOR	30
Sound Menu	31
SOUND	31
SOUND	31
BUZZER	31
DATE/TIME	32
System Menu	32
DATE/TIME	32
NETWORK	33
MAIL SETUP	33
MAIL SETUP	34
SYSTEM MANAGEMENT	35
CONTROL DEVICE	37
HDD EVENT	38
ALARM INPUT	38
Event / Sensor	38
HDD EVENT	38
ALARM OUT	39
BUZZER OUT	39
EMAIL NOTIFICATION	40
Disk Management	40
Recording Menu Controls	42
Simple and Advanced Modes	42
Simple Recording Mode	43
Recording Operation	43
Simple Recording	43
Simple Recording Mode	43
Simple Recording Mode	44
Advanced Recording	44
Recording Operation	44
Advanced Recording	45
Continuous / Motion Setup	45
Continuous / Motion Parameter	45
Continuous / Motion Parameter	45
Continuous / Motion Schedule	46
Advanced Recording	47
Alarm Setup Mode	47
Alarm Parameter	47
Alarm Parameter	47
Alarm Schedule	48
Saving the Settings	48
Archiving	49
Archive Backup to FTP	51
Search	52
Search By Event	53
VGA Mode (Mode 2)	54
VGA Connection Errors	54

VGA Mode - Remote Control Usage	55
Component Mode (Mode 3)	56
Setting Component (Component Mode) On Your DVD Player	56
Component Mode - Remote Control Usage	57
Picture Frame Mode (Mode 4)	58
USB Flash Drive Images	58
Picture Frame Mode - Remote Control Usage	59
Picture Frame Display	59
<i>Picture Frame Settings Menu</i>	60
Picture Frame - Menu	60
Picture Frame Settings	60
Picture Resizing Application	61
Installation Guide Mode (Mode 5)	62
Installation Guide Mode - Remote Control Usage	63
<i>Color Submenu</i>	64
Monitor - Menu Settings	64
Image Settings	64
Display Settings	65
<i>Display Control Submenu</i>	65
PIP Settings	66
Misc. Settings	67
About Lorex Client	68
System Requirements	69
Software Installation	70
Screen View Controls	74
PTZ Controls	74
AVI File Conversion	75
Event Viewer	75
Connection Manager	76
Adding a Site (Individual Unit Configuration)	77
Configuration Tab	78
Modifying a Site	79
Remote Connection	80
Search Functions	81
Event Viewer	82
Search Options	83
Archive	83
Remote Setup	84
Recording Setup - Simple	84
Recording Setup - Advanced	85
Camera Setup	86
Sound Setup	87
Event/Sensor Setup	88
System Setup	89
Display Setup (Screensaver)	91
Lorex Player	92
Video File Watermarking	92
Image Save Function	93
Print Function	93

Event Viewer	94
Web Client	96
Multiple Connection Setup	97
Adding Multiple Sites with Multiple Systems	98
Selecting a Site for Connection	98
Appendix A: System Specifications	99
Appendix B: Setting up Remote Viewing	101
Appendix C: Using the Auto Email Feature	111
Appendix D: Recommended Tips for System Setup	115
Appendix E: Listen-in Audio	122
Appendix F: Playback Previously Recorded Data?	123
Appendix G: Setting Auto-Recording to OFF	125
Appendix H: Setting up Motion Recording	127
Appendix I: Using the Storage Calculator	131
Appendix J: Replacing the Hard Drive	132
Appendix K: Connecting a Spot-Out Monitor	134
Appendix L: Connecting Motion / Alarm Devices	135
Appendix M: Connecting PTZ Cameras	136
Appendix N: Full Connectivity Diagram	137

Getting Started

The system comes with the following components:



INTEGRATED DVR/LCD MONITOR



POWER ADAPTER



MOUSE



OCTOPUS CABLE



REMOTE CONTROL



ETHERNET CABLE



HARDWARE & SOFTWARE MANUALS, QUICKSTART GUIDE, & SOFTWARE 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.

Tips & Tricks - Useful System Information

The following Tips & Tricks contain useful information about your system:

- Your default system password is **1234**. This password may be required when entering menus, reviewing Recorded Data, Archiving, PTZ, and for Remote Access. You can change this password in the System Menu.
- Make sure to set up your **DATE & TIME** prior to starting recording. These settings are very important to maintain system data accuracy.
- **Picture in Picture (PIP)** behaves in different ways, depending on MODE:
 - When in VGA Mode, the PIP will display the DVR Screen.
 - When in Component Mode, the PIP will display the DVR Screen.
 - When in Picture Frame Mode, the PIP will display the DVR Screen.
 - A PIP Screen will NOT be displayed when the Installation Guide Video is playing
 - When in DVR Mode, the REVERSE-PIP will display the Component, Video or VGA Input. This function could be used to watch a movie or view your PC display while still monitoring the Live Video display.
- When setting up the system for Remote Access, it is very important to turn off the system, **CONNECT THE ETHERNET CABLE** to the system and to the router, and then turn the system back on again. If the cable is connected while the system is on, it will not properly get Network Information from the Router.
- If you are experiencing difficulties accessing your system remotely, press the INFO Button on the Remote Control -or- the Enter Button on the Front Panel to display the System Information. The **IP ADDRESS SHOULD NOT BE 127.0.0.1** - if it is, your system network settings are not correct. Please see the Network section of this manual for details.
- To listen to **AUDIO IN PLAYBACK MODE**, make sure to maximize the selected channel to full screen. Audio will NOT play when playback is in split screen mode.
- When **EDITING SYSTEM SETTINGS**, it is important to note the color of your Highlight Box. When the highlight box is in GREEN, it indicates that the option is available for editing. When the highlight box is in ORANGE, it indicates that the option is in active editing mode, and the setting can be changed.
- The **SPOT OUT** option on the system does **NOT** display exactly what is shown on the Monitor screen - the spot out will show individual cameras in Sequence Mode, based on Menu Settings.

Orange Highlight - Indicates that the option is in active editing mode.

Green Highlight - Indicates that the option is available for editing. Once the option is highlighted, press the ENTER key to edit the option (highlights changes to Orange).



Basic System Setup

The following connections are recommended prior to loading the system for the first time.



1

Connect Cameras to the Monitor:

Please see the Camera Installation Section of this manual for details.

TIP: Test the cameras prior to selecting a permanent mounting location by temporarily connecting the Cameras and Cables to your System.

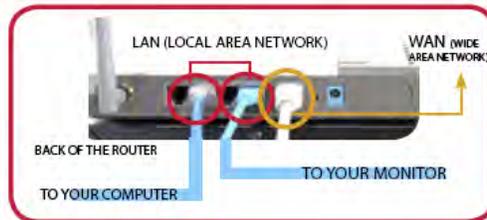


2

Connect Ethernet Cable:

Connect one end of the Ethernet cable (for remote monitoring) to one of the router's (not included) LAN ports and the other end to Monitor's Network Port located at the back of the Monitor.

See picture below showing a generic LAN/WAN connection.



3

Connect the Mouse:

Connect a USB mouse to one of the USB ports located at the side of the monitor.



4

Connect Power Cable:

Connect one end of the Power adaptor to the monitor, the other end to an electrical outlet.

Your system will perform the following System Check:

1. Blue LED at the front flashes four times
2. You will hear 2 beeps
3. Power LED at the front turns RED

System Startup / Shutdown

System Loading Sequence

- Press the POWER button located on the front panel of the system to start the unit, or press the Power Button on the Remote Control.
- The system will perform a hard drive check

The unit will initially load to a split screen view, displaying all channels (if available). Empty channels will be displayed in Blue.

NOTE: If a new **HARD DRIVE** is detected, the system will prompt you to **FORMAT** the drive. If you do not choose to format the **HARD DRIVE**, the drive will not be detected by the system.

If you choose to **FORMAT** a drive in this way, the drive will no longer be readable by a regular PC without using the **HARD DRIVE VIEWER** software included on the CD provided with this unit. Please see the Appendices for details on Hard Drive format.



Monitor Display Shutoff

- Press the Power Button on the front panel or remote control for one second to turn off the monitor only.
- The system will continue to record while the monitor is off.
- The LED indicators on the front of the system will remain ON.
- The monitor shutoff can be automatically set using the Screen Saver settings in the System Menu.

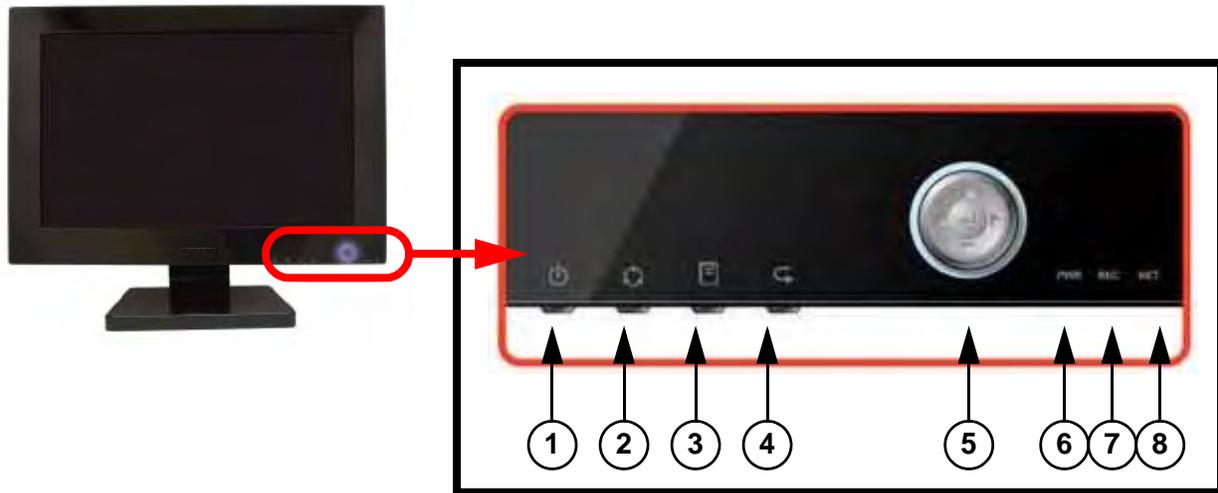
System Shutdown

- Press and hold the Power Button on the front panel or remote control for three seconds to turn off the system, or select Shutdown from the Mouse Menu. Enter the Admin Password (by default, **1234**).
- Only the ADMIN can turn the unit ON/OFF.
- The system will NOT continue to record while the unit is off.
- The LED indicators on the front of the system will be OFF.



System Shutdown Prompt

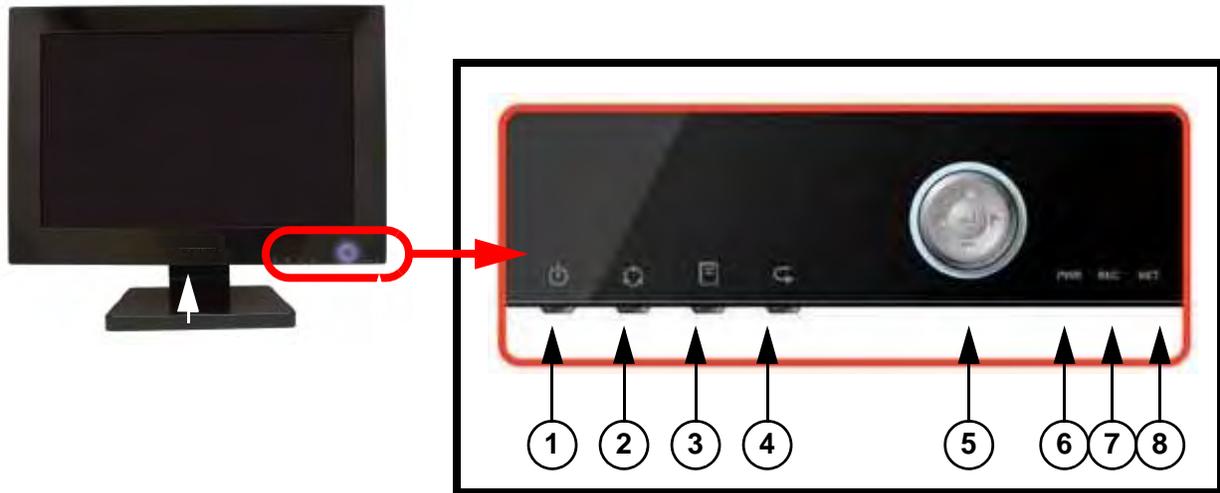
Front Panel



1. **SYSTEM POWER BUTTON** - Press the System Power button to turn the Monitor display ON/OFF. Press and hold the button to turn the DVR ON/OFF.
2. **MULTI-FUNCTION MENU MODES** - Press the Multi-Function Menu button to switch between monitor modes:
 - **DVR Mode** - Displays the DVR with live camera view.
 - **VGA Mode** - Displays the device connected to the VGA port on the monitor (i.e. a computer).
 - **Component Mode** - Displays the device connected to the component green, blue, and red inputs (Y/Pb/Pr) in high resolution (i.e. DVD Player).
 - **Picture Frame Mode** - Displays JPEG images from a USB flash drive on the monitor as still images. Images cannot exceed 1600x1200 pixels.
 - **Installation Guide** - Displays the system installation video.
3. **SETUP MENU** - Press the Setup Button to display the System Menu (in DVR Mode), the Monitor Configuration Setup Menu (in VGA or Component Mode) or the Picture Frame Setup Menu (in Picture Frame mode).



Front Panel



4. **RETURN BUTTON** - Exits a menu and returns the screen to the default view for the selected Mode.
5. **NAVIGATION & ENTER CONTROLS** - Use the Navigation controls to move Up, Down, Left and Right in menus, and press Enter to select options.
6. **POWER LED** - Indicates that the system is ON/OFF (RED LED).
7. **REC LED** - Indicates that the system is currently recording (when the RED LED is ON).
8. **NET LED** - Indicates that a remote connection has been made to the unit (over the Network) when the RED LED is ON.

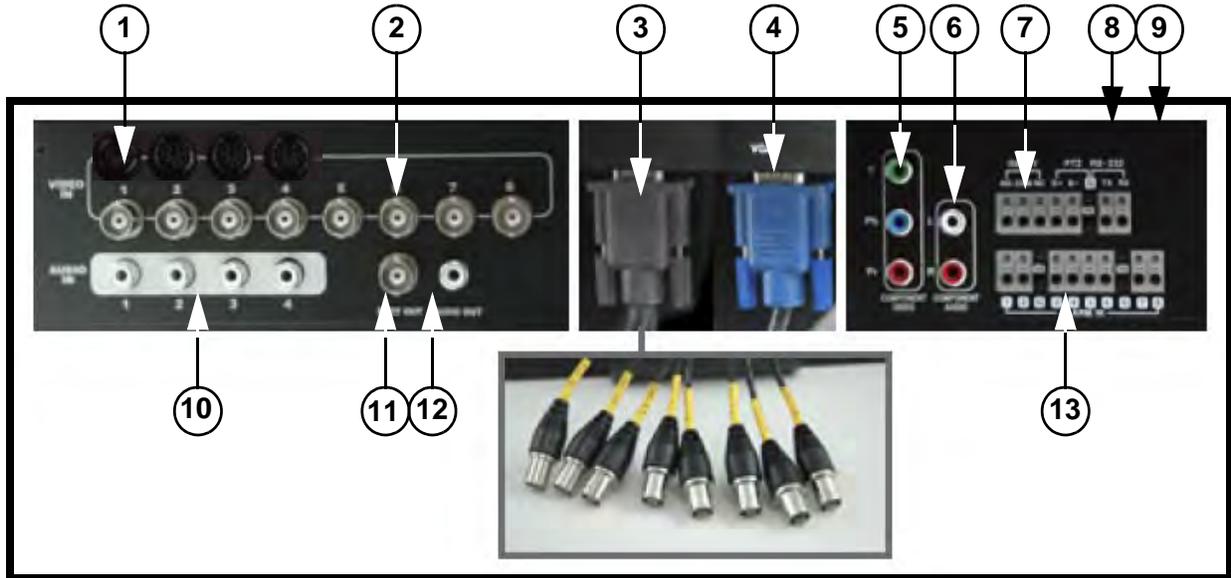
Side Panel - USB Ports

The USB ports provide a connection point for a USB PC Mouse, USB flash drives and external USB hard drives.

- Use a mouse for navigating in DVR and Picture Frame modes.
- Connect a USB flash drive or external USB hard drive or optical drive (CD-RW/DVD-RW) for system Archive Backup.
- Add JPEG pictures to a USB flash drive to use the monitor as a digital Picture Frame display.



Rear Panel

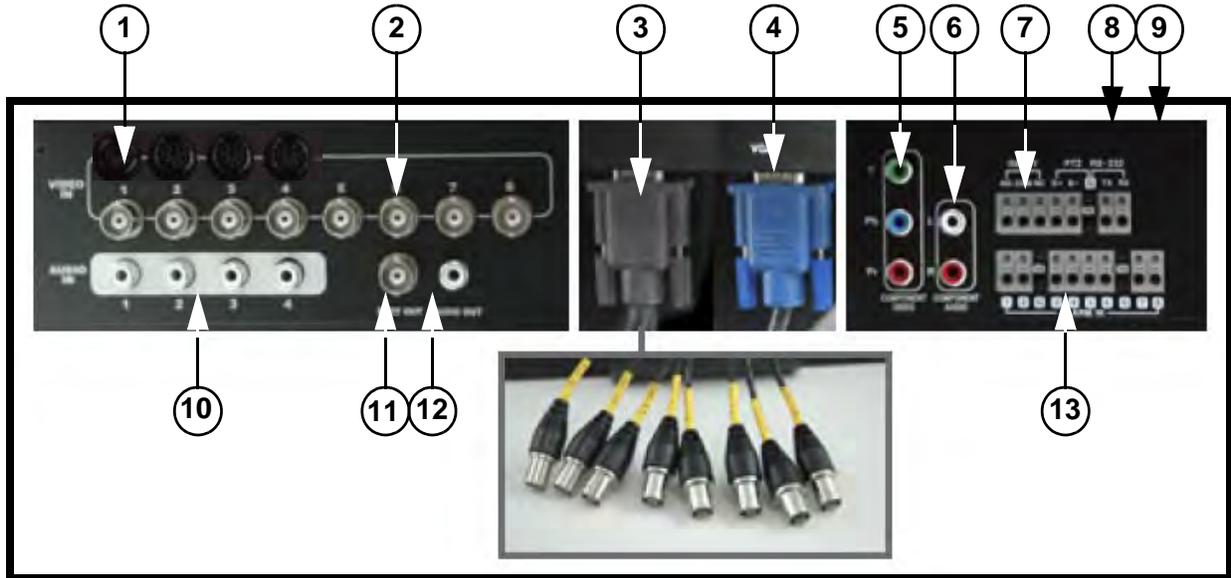


1. **6 PIN DIN VIDEO INPUTS** - Channel 1-4 Camera inputs (for cameras with 6 Pin DIN connections). Cameras with 6 Pin DIN connections draw power from the system - additional power adaptors are not needed.
2. **BNC VIDEO INPUTS** - Channel 1-8 camera inputs (used to connect Cameras with BNC connection type). Cameras with BNC connections require an additional power adaptor.
3. **OCTOPUS CABLE INPUT** - Connect the Octopus Cable to the system to add an additional 8 cameras (CH 9~16).
4. **VGA INPUT** - Connect a PC (or other devices with a VGA Output) to the system. The system will perform as a Computer Monitor (when in VGA Mode).
5. **COMPONENT VIDEO IN** - Connect a DVD Player, Digital Cable or Satellite Receiver to the component Video Inputs (Y/Pb/Pr).
6. **COMPONENT AUDIO IN** - Connect a DVD Player, Digital Cable or Satellite Receiver to the component Audio Inputs (Audio in Left/Right Channels). The Component Output must be turned ON on most DVD Players before connection to the system.
7. **RELAY / PTZ / RS-232 BLOCK** - These terminals are used to send a signal to a secondary device or control PTZ (Pan/Tilt/Zoom) type cameras.



6 PIN DIN

Rear Panel



8. **ETHERNET PORT** - Connects the monitor to a router for connection to the Internet. Refer to Appendix C for Remote Connection setup.
9. **DC INPUT** - Connect the AC power using the power cord provided with the unit from the monitor to an electrical outlet.
10. **RCA AUDIO INPUTS** - Channel 1-4 Audio inputs (for BNC type cameras with standard RCA Audio output).
11. **SPOT OUT** - Video Output port to connect the unit to a Monitor or TV. This feature is used for situations in which you want to have the system in a back room while still displaying images to the public eye, for theft deterrence or advertising purposes.
12. **AUDIO OUT** - Audio Output port to connect the unit to a secondary audio device (i.e. Speakers).
13. **ALARM FUNCTION TERMINALS (INPUT/OUTPUT)** - These terminals are used to connect external alarm devices such as a motion sensor, door/alarm sensor, or time lapse VCR for Alarm Recording. Refer to the appendices for Alarm Block Configuration.

Using the Octopus Cable

The Octopus Cable (included with the system) allows eight additional cameras to be added to the system.

1. Connect the cable to the **VIDEO IN 9 - 16** port on the rear panel of the system.

NOTE: DO NOT connect the Octopus Cable to the VGA port.

2. Attach BNC cameras to the cables. Each cable is labelled with a channel number.

Once the cable and cameras are attached to they system, use the menu to configure the camera settings and recording options.



Installing Cameras

Before you install the camera, carefully plan where and how you will position the camera, and where you will route the cable that connects the camera to the system.

Installation Warnings:

- Select a location for the camera that provides a clear view of the area you want to monitor, which is free from dust, and is not in line-of-sight to a strong light source or direct sunlight.
- Plan the cables' route so that it is not close to power or telephone lines, transformers, microwave ovens or other electrical equipment that could interfere with the system.
- Select a location for the camera that has an ambient temperature between 14°F~113°F (-10°C~45°C)
- If you plan to install the camera in a location that has conditions not recommended in this manual, consult with a professional installer and consider use of a separate camera cover or housing
- Before starting permanent installation, have another person hold the camera for you while you verify its performance by observing the image on the monitor.

Camera Stand Installation*:

1. Attach the pedestal to the ceiling, wall or other surface by the base using the provided screws.
2. The mounting bracket must be attached to a structural device such as a wall stud or ceiling rafter using the supplied screws.
3. Attach the camera to the pedestal. Adjust the angle of the camera, and tighten the thumbscrew to set the position

NOTE: The Camera can be attached to the stand using the screw point on the top or the bottom (to maintain proper camera alignment). This prevents the image from becoming inverted.



* Camera model may not be exactly as shown.

Connecting DIN Cameras

1. Connect the female end of the DIN Extension Cable to the camera.

NOTE: Make sure that the ARROW on the cable is pointing up. This will align the pins on the cable correctly with the port on the stem, preventing the pins from becoming bent and the cable from becoming inoperable.



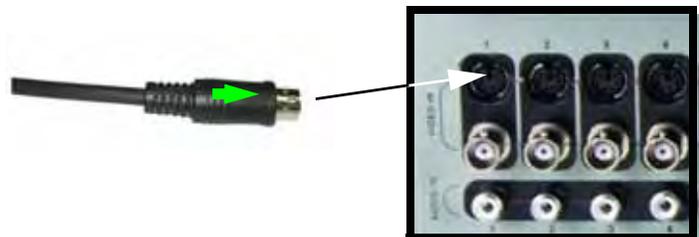
2. Mount the camera to the desired surface (ceiling, wall, shelf, etc.). Connecting the cables BEFORE permanently mounting the stand will help prevent issues with cable length (camera is mounted too far from the system and cannot be connected).



3. Aim the camera at the desired location. Remember to **REMOVE THE PROTECTIVE FILM** from the lens of the camera by pulling on the plastic tab.

4. Connect the male end of the supplied DIN extension cable to an open DIN camera port on the back of the system. Continue connecting additional DIN cameras.

NOTE: The arrow on the DIN camera should be facing up when connecting the DIN Extension Cable to the system.

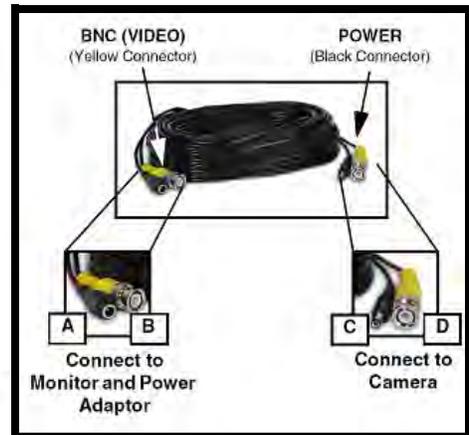


* Camera model may not be exactly as shown.

Connecting BNC Cameras

1. Connect the Extension cable to the Camera and System:

- A. Connect the Barrel Power connector to a power adaptor.
- B. Connect the BNC connector to an available BNC Port of the system.
- C. Connect the Male Power connector to the Camera.
- D. Connect the BNC connector to the Camera.

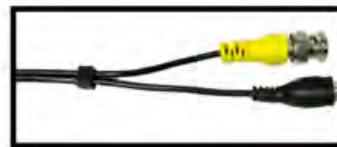


2. Connect the Power Adaptor to a wall outlet.

IMPORTANT NOTE: The ends of the extension cable are NOT the same - one end has a Male power port, and the other has a Female power port. Before permanently running the Camera Extension Cable, make sure that the cable has been oriented between the Camera and the unit correctly.

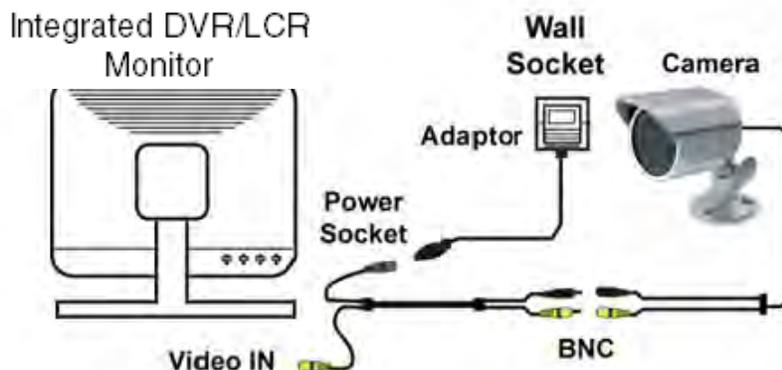


Male Power Port - The male power port end of the Extension cable connects to the Camera.



Female Power Port - The female power port end of the Extension cable connects to the Power Adaptor.

Camera Connection Diagram



Multi-Function Display: Monitor Modes

This system contains a multi-function display, which allows the system to function in several modes:

- **Mode 1: DVR Mode** - Displays the DVR with live camera view.
- **Mode 2: VGA Mode** - Displays the device connected to the VGA Port on the monitor (i.e. a computer).
- **Mode 3: Component Mode** - Displays the device connected to the component green, blue, and red inputs (Y/Pb/Pr) in high resolution (i.e. DVD Player, Digital Cable or Satellite Receiver).
- **Mode 4: Picture Frame Mode** - Displays JPEG images from a USB flash drive on the monitor as a slide show.
- **Mode 5: Installation Guide** - Displays the system installation video.



For more information on the use and settings for a specific mode, please refer to the associated section in this manual for details.

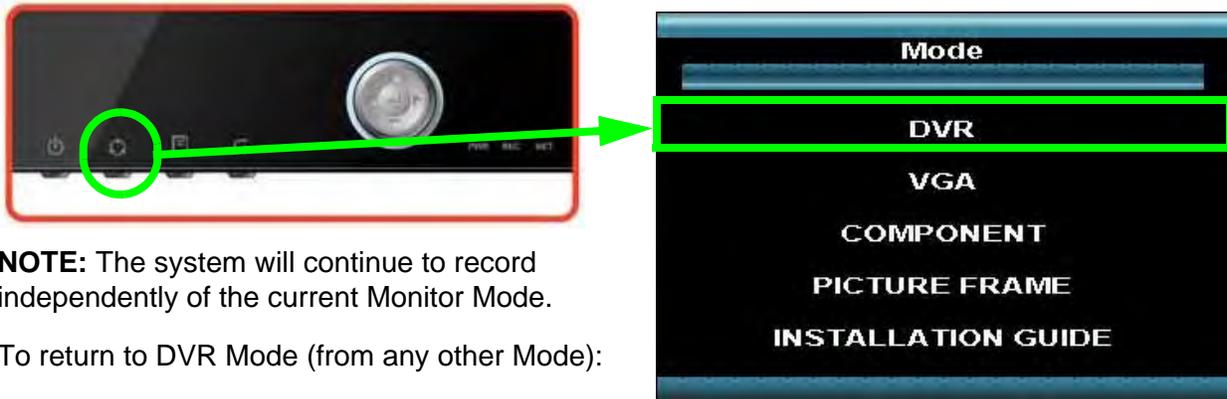


NOTE: The system will continue to record while in other modes. This provides an advanced level of Covert Surveillance.

DVR Mode (Mode 1)

DVR Mode is the primary mode for the system, and is the default mode when the system is powered on. In DVR Mode, the system performs the following functions:

- View and Record live video channels in Single, Quad, Multi-Display or Sequence Mode.
- Customize the recording on up to 8 camera channels in continuous, motion or alarm recording modes.
- Archive data to a USB flash drive, an external USB hard drive, optical drive (CD-RW/DVD-RW), or Network Storage through FTP.
- Search through Previously Recorded Events
- Customize the Display, Cameras and System to best suit your security needs through the user friendly System Menu.



NOTE: The system will continue to record independently of the current Monitor Mode.

To return to DVR Mode (from any other Mode):

Front Panel:

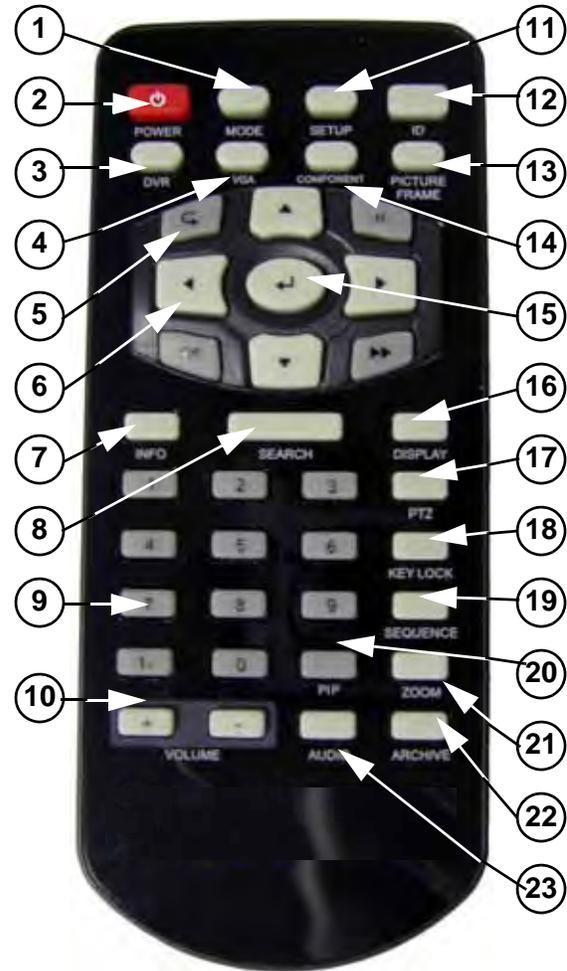
1. Press the Multi-Function Mode Button on the Front Panel.
2. Use the Up and Down arrows on the Navigation Control to select DVR.
3. Press the Enter button on the Navigation Control to switch to DVR Mode.

Remote:

1. Press the DVR Button on the Remote Control -or-
2. Press the Mode button on the Remote Control. Use the arrows to select DVR, and press the Enter button.

DVR Mode - Remote Control Usage

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.
2. **POWER:** Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.
3. **DVR:** Change to DVR Mode.
4. **VGA:** Change to VGA Mode.
5. **RETURN:** Exits from a System Menu.
6. **NAVIGATION/PLAYBACK:** Press the Navigation Controls to move Up, Down, Left or Right in System and Mode menus. Use the Playback controls to Pause, Play, Reverse or Fast-forward the Playback in DVR Mode.
7. **INFO:** Displays the System Information in DVR Mode.
8. **SEARCH BUTTON:** Displays the Video Playback Search menu.
9. **NUMBER KEYPAD:** Use to switch between Cameras in live view mode.
10. **VOL +/-:** Increase or Decrease the volume of the camera currently broadcasting live audio.
11. **DVR SETUP:** Displays the DVR Setup Menu.
12. **REMOTE ID:** Changes the ID for the remote control to match the System ID (if changed). Use the Remote ID when using one remote to control multiple systems). To set the Remote to default, press and hold the Remote ID button for 5 seconds, then select number 1. Press the Enter and Return buttons.
13. **PICTURE FRAME:** Change to Picture Frame Mode.
14. **COMPONENT:** Change to Component Mode.
15. **ENTER BUTTON:** Press the Enter Button to select an option in the System Menu or Multi-Function Menu. Also displays PIP when in camera viewing mode.
16. **DISPLAY:** Switches the display to single, quad and multi-display views.
17. **PTZ:** Switches to PTZ Mode.
18. **KEYLOCK:** Locks all keys (except the Mode button).
19. **SEQUENCE:** Changes the Monitor Display to Sequence through channels (based on menu settings).
20. **PIP:** Displays the Component Input in the PIP Screen in the lower right corner.
21. **ZOOM:** Displays one channel with Digital Zoom.
22. **ARCHIVE:** Displays the Archive menu.
23. **AUDIO CHANNEL SELECT:** Switches between live audio channels (CH1~4 only). Press Audio and select Channel 1~4.



1. Mode	13. Picture Frame Mode
2. Power	14. Component Mode
3. DVR Mode	15. Enter Button
4. VGA Mode	16. Display Mode
5. Return Button	17. PTZ Mode
6. Navigation Controls	18. Keylock
7. Information	19. Sequence Mode
8. Search Button	20. PIP Mode
9. Number Keypad	21. Zoom Mode
10. Volume +/-	22. Archive
11. DVR Setup	23. Audio Channel Select
12. Remote Control ID	

Front Panel Navigation Controls

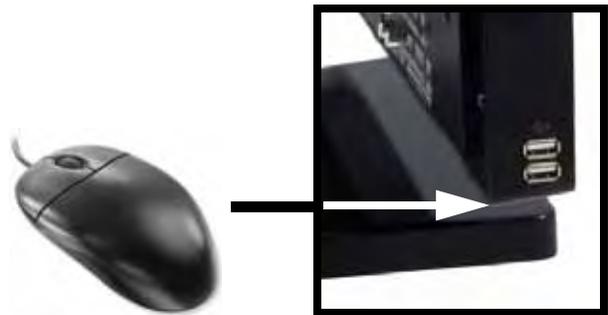
This system has been designed to use the mouse or remote control as the primary modes of navigation and configuration for the system. The Front Panel buttons can also be used to access the menus and configure the system.



- Navigation Controls: Move Up/Down/Left/Right in menus.
- Press the Up or Down arrow keys (when in the default display mode) to load the On-Screen Display Menu (see next page for details).
- Enter Button: Press this button to select and change the values in a menu option.

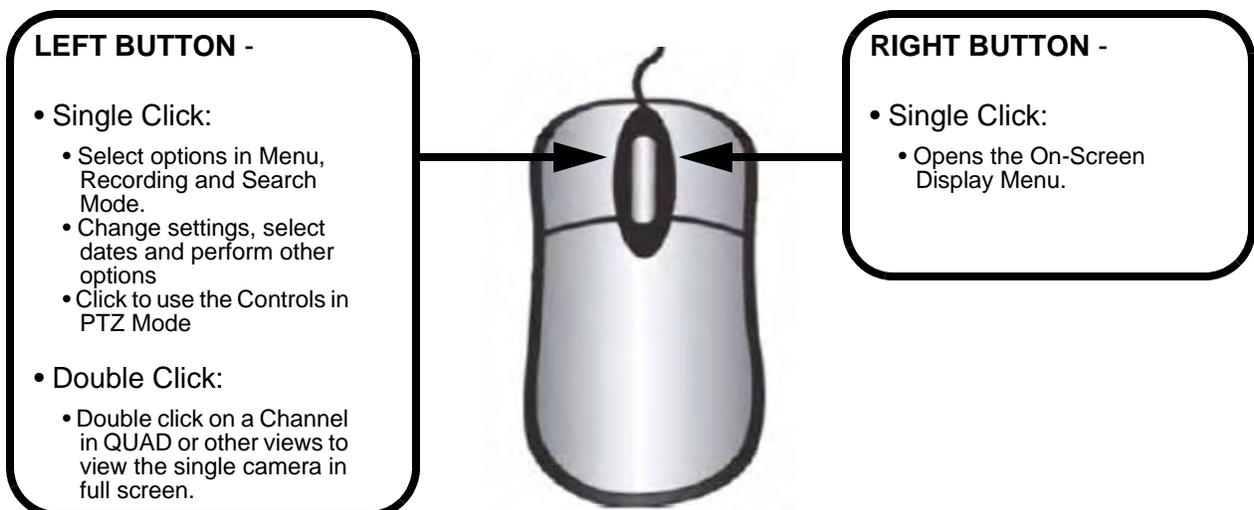
Mouse Control

Before powering on the system, connect a USB mouse to one of the USB ports on the side of the monitor.



Mouse Controls

The mouse behaves in the same way as a PC mouse - use the Left and Right Buttons to open menus and change options:



On-Screen Display Menu

To open the On-Screen Display Menu:

- Press the Up or Down Arrows on the Front Panel
- Right-click the mouse

The Menu options include:

1. **CHANNELS:** Select a Channel Number (1~16) to display a camera in Full Screen Mode.
2. **SETUP:** Displays the System Setup Menu. Please refer to the System Setup section for detailed configuration.
3. **SEARCH:** Allows you to locate previously recorded video by Date and Time, or by Event Type.
4. **PTZ:** Displays the PTZ Control Screen. The PTZ / Focus Menus will only work with PTZ type cameras (not included)
5. **DISPLAY:** Changes the current display mode to Single, Quad, 6-channel split, 8-channel split or 9-channel split, 13-channel split, and 16-channel split screen views.
6. **ARCHIVE:** The Archive feature copies data from the internal hard disk to backup media, such as an external USB hard drive or USB flash drive. See the Archive Menu Section for details.
7. **SEQUENCE:** Selecting the Sequence option switches the live camera view to the Sequence set in the System Menu.
8. **ZOOM:** Displays one channel with Digital Zoom.
9. **KEY LOCK:** Locks all Front Panel and Remote Control buttons (except the Mode change buttons). The password is required to unlock the keys. The system can still enter any other mode while the keys are locked (VGA, Component, Picture Frame or Installation Video modes).
10. **VOLUME:** Adjusts the volume of the system.
11. **PIP:** Select the PIP Button to display the VGA or Component mode in a PIP window. This function could be used to watch a movie while still monitoring the Live Video display.
12. **SHUTDOWN:** Select the Shutdown option to turn off the system.



System Display

Camera Title: The title for the camera is displayed in the upper left corner of the channel window, to a maximum of 11 characters. To change the name, use the System Setup options.

Recording Status:

- : Record
- : Pre Record
- C:** Continuous
- M:** Motion
- A:** Alarm

Date & Time: Displays the current Date and Time for the system.

NOTE: It is very important to set the Date and Time prior to recording. If the date and time are changed after recording has started, old data may be overwritten and lost.

Hard Drive Recording Settings: Displays the current Recording Type:

- If displaying a % under 100%, the drive is not yet full.
- If displaying 100%, the drive is full, and overwrite is OFF.
- If displaying OW, the drive may not be full, however the system is set to Overwrite (starting from the oldest data) once the drive capacity is reached.

Network Connectivity Indicators

The Network Indicators appear when a remote connection is made to the unit via the Remote Agent software, or through the Internet Explorer Web Client:

- Green:** Indicates that the network connection is stable.
- Blue:** Indicates that the network connection is experiencing difficulties.
- Red:** Indicates that the network connection is not strong.



Network Indicators

Camera Display Modes

Cameras can be displayed in several different modes by pressing the Display Button on the Remote Control or Mouse Menu.



A Display Selection window will appear on-screen. Select from the available display types:



Single Channel



Quad (4) Channel



6 Channel Split View



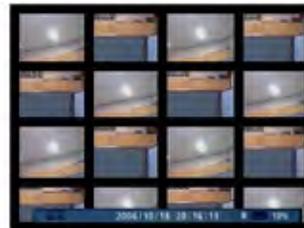
8 Channel Split View



8 Channel Grid



13 Channel Split View



16 Channel Grid

Zoom Mode

- Displays the Camera in ZOOM Mode.
- Use the Arrow keys to adjust the Zoom location.
- Press the Return key to exit ZOOM Mode.



PIP Mode (Reverse PIP)

When using the PIP function when viewing in DVR MODE, it is referred to as 'Reverse PIP' (as normal PIP means displaying the DVR Screen as a PIP on any other mode).

Select the PIP Button to display the VGA or Component mode in a PIP window. This function could be used to watch a movie while still monitoring the Live Video display.



PTZ (Pan/Tilt/Zoom) & Focus Controls

The PTZ / Focus Menus will only work with PTZ type cameras (not included):

- Press the PTZ Button on the remote control or Mouse Menu to access the PTZ Control Screen:
- The on-screen icons represent buttons on the front panel and remote control (up/down/left/right). The Camera can be adjusted using these buttons
- Press the Return Button to exit PTZ Mode.



PTZ Control Screen

- Press the PTZ Button a second time to access the Focus Control Screen:
- The on-screen icons represent buttons on the front panel and remote control (up/down/left/right). The Camera can be adjusted using these buttons
 - F: Indicates FOCUS
 - I: Indicates IRIS
- Press the Return Button to exit PTZ Mode.



Focus Control Screen

NOTE: Make sure that the PTZ Settings are configured in the Menu before attempting to use any of the PTZ Menu Functionality.

Menu Navigation Controls & Tips

YOUR SYSTEM PASSWORD IS: **1234**

Virtual Keyboard Control

The Virtual Keyboard control becomes available when keyboard input is needed for entering information such as Names, Network Information, etc.

- Includes a~z, A~Z, 0~9 and Symbols.@#%\$^&*()
- Navigate using the arrow keys on the Front Panel or Remote Control, or by clicking with the Mouse.
- Select the ENTER button once the Alpha/Numeric entry is completed.

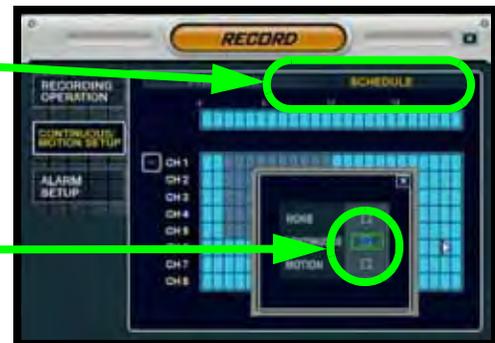


Click to View Uppercase and Symbols

Active Option Indicator

Orange Highlight - Indicates that the option is in active editing mode.

Green Highlight - Indicates that the option is available for editing. Once the option is highlighted, press the ENTER key to edit the option (highlights changes to Orange).



NOTE: Once changes have been made, select the APPLY button at the bottom of the screen, and press the ENTER button on the front panel or remote control. Changes will be saved at this time - exiting the menu without applying the changes will result in the changes being lost.

Volume Adjustment

Displays the volume level of the camera currently set to Live Audio

The Camera Volume can be controlled using the Volume + / - keys.



System Setup Controls

- Enter the **MENU** screen by pressing the **SETUP** button on the Remote Control, by pressing the **SYSTEM MENU** button on the Front Panel or by selecting **SETUP** from the Mouse Menu. Enter the password (if required). The default password is 1234.



- Select the **SYSTEM SETUP** option to configure the menu options.
- Scroll through the six options by pressing the **UP**, **DOWN**, **LEFT** and **RIGHT** buttons on the Front Panel or Remote Control, or clicking with the Mouse
- To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.
- To exit the **MAIN MENU**, press the **RETURN** button.



Main Menu

- DISPLAY:** Setup of display options.
- CAMERA:** Setup for individual Cameras.
- SOUND:** Sound settings for the system.
- SYSTEM:** System and Network settings.
- EVENT/SENSOR:** Alarm and Event setup.
- DISK MANAGEMENT:** Hard drive options.



↑↓←→: Scroll UP/DOWN/LEFT/RIGHT within a menu option
ENTER: Press this button to select and change the values in a menu option
RETURN: Complete modifications of a menu option; exit a menu

Display Menu

The Display Menu controls:



OSD - On-screen display settings control the camera titles, event indicators, and general screen settings.

MONITOR - Display settings for Alarm and Events

SEQUENCE - Controls the settings for the display of video images in Sequence Mode

SPOT-OUT - Sends camera video to a secondary monitor (by individual camera based on the settings) through the SPOT-OUT Port.

SCREENSAVER - Configuration for the system screensaver

OSD (On-Screen Display)



OSD (On-Screen Display)

- **Status Bar** - Turns the status bar ON/OFF. The status bar displays:
 - Recording State (Recording: Red, Pre-recording: Green)
 - Network Indicators
 - Time and Date
 - % HDD Free
 - Refer to Recording Settings on page 50).
- **Camera Title** - Turns the display of the Camera Titles ON/OFF.
- **Event Icon** - Turns the Event Icon display ON/OFF.
- **Border** - Turns the channel separation border ON/OFF when the display is in Quad Display Mode.
- **Border Color** - Sets the Border Color: White, Blue, Red, Yellow, Green or Gray.
- **Menu Transparency** - Sets the Menu Transparency between 0 (no transparency, menu is very dark) to 100 (full transparency, menu is very light).
- **Motion Sensor Display** - Turns the display of the Motion Sensor to:
 - Active: Display motion sensor of motion detection area.
 - Inactive: Display motion sensor except motion detection area.
 - Off: No display of motion sensor.
- **Motion Sensor Color** - Sets the motion sensor color. When Motion is detected on a channel, the moving parts of the image will be highlighted with colored squares (i.e. Blue Squares). Colors include Blue, Green, Red or Yellow.
- **Motion Transparency** - Setup motion transparency. This sets the transparency of the Motion Sensor blocks from 0~3.
- **Language** - Change the language for the On Screen Display and DVR Menu selections to English, French or Spanish.

MONITOR



- **Sequence Dwell** - Sets the cycle time when the system is in Sequence Mode (between 1~60 seconds).
- **Spot-Out Dwell** -The length of time to display a camera in Spot-out mode.
- **De-Interlace Mode** - Removes the screen spread when set to ON.
- **Alarm Pop-Up Mode** - Set to ON/ OFF. Switches the screen display to the detected channel when an Alarm is activated.
- **Alarm Pop-Up Dwell** - Determines the length of time that a channel is displayed when an Alarm is detected (between 1~60 seconds).
- **Motion Pop-Up Mode** - Set to ON/ OFF. Switches the screen display to any channel when Motion is detected.
- **Motion Pop-Up Dwell** - Determines the length of time that a channel is displayed when Motion is detected (between 1~60 seconds).
- **Aspect Ratio** - Sets the Aspect Ratio for the display to 16:9 (widescreen) or 4:3 (Full Frame—black bars appear on sides)



16:9 Ratio



4:3 Ratio

SEQUENCE

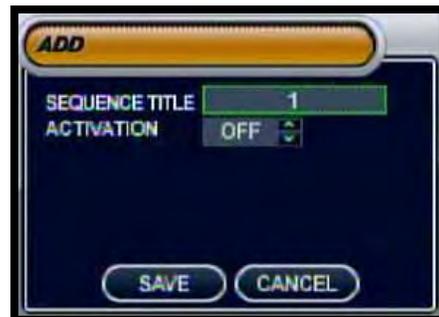


Sets the Sequence Mode for the display of available channels. The Sequence Settings for camera views can only be changed using the Mouse or Remote Control.

- **Activation** - Turns the Sequence ON/ OFF.

NOTE: Up to 16 different Sequence Mode settings can be configured, however only ONE can be active at a time.

- **List** - Displays the Sequence Title



- **ADD Button** - Select the ADD button to create a New Sequence:
 - **Sequence Title** - Enter a title for the New Sequence
 - **Activation** - Turn the Sequence ON/ OFF (only one sequence can be active at a time).
 - **CANCEL Button** - Cancels the addition of the New Sequence.
 - **SAVE Button** - Saves the New Sequence, and moves to the New Sequence Configuration screen:

Once the New Sequence has been created, the Sequence Setup Mode screens appear. These screens will set the sequence patterns (see the following for details).

Modifying a Sequence

- An existing Sequence can be Modified by selecting it from the list, and pressing ENTER. Once changes have been made, select the MODIFY button to configure the views, then press the SAVE Button.



NOTE: The system will prompt you for "MOUSE OPERATION ONLY," however, you can modify the Sequence setup using the remote control.

SEQUENCE SETUP - REMOTE



1. Press the ENTER button on the Remote. The Highlight will change to YELLOW - Setup Mode is now active.



2. Select the Display Mode by pressing the Left and Right buttons (7 different Display Options - Single, Quad, 6-split, 8 split, 9-split, 13 split, 16 split).



3. Press the Number Keys to Select channels to be displayed in Sequence (all squares must have an assigned number). Press ENTER when complete.



4. Repeat for the next Display Modes (up to 16 additions).



5. Press the RETURN button when complete. and select SAVE & EXIT.



6. Press the SEQUENCE button on the Remote or Mouse Menu to switch to Sequence display.

SEQUENCE SETUP - MOUSE



1. Double Left Click on the Green Highlighted box. The Highlight will change to YELLOW - Setup Mode is now active.



2. Select the Display Mode by pressing the Left and Right buttons (7 different Display Options - Single, Quad, 6-split, 8 split, 9-split, 13 split, 16 split).



3. Click the Right Mouse Button to assign channels using a drop down menu (all squares must have an assigned number). Click anywhere outside the squares to exit.



4. Repeat for the next Display Modes (up to 16 additions).



5. Right click an empty spot outside of the squares when complete. and select SAVE & EXIT.



6. Press the SEQUENCE button on the Remote or Mouse Menu to switch to Sequence display.

SPOT-OUT

Sends the Specified camera video to a secondary Monitor (using the Spot Out Port on the back of the unit).



- Check or Uncheck the selected Cameras to have the video sent to a Secondary Monitor in Sequence.

NOTE: Any cameras NOT selected will not be sent as video to the Spot Out Monitor.

SCREENSAVER



- **Auto Brightness** - Sets the length of time before the Screen brightness is turned down (10, 20, 30, 40 or 50 minutes, or 1 hour).

NOTE: The unit continues to function, and pressing any key will turn the screen back on.

- **Main Display OFF** - Turns the Main Display Screen ON/OFF:
 - **ON** - The Main Display is always ON
 - **OFF** - The Main Display is always OFF
- **FROM** - Used ONLY when the Main Display OFF setting is set to ON. Sets the Start Time for the monitor to go into Screen Saver mode.
- **TO** - Used ONLY when the Main Display OFF setting is set to ON. Sets the End Time for the monitor to exit from Screen Saver mode.

Camera Menu

The Camera Settings and Controls:

CAMERA TITLE - Settings for the on-screen display of individual Camera Titles.

COLOR SETUP - Color settings for individual cameras.

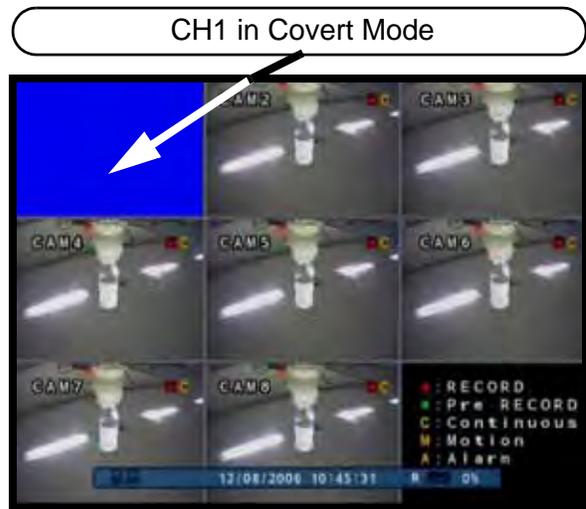
PTZ SETUP - Configuration for PTZ type cameras (not included with the system).

MOTION SENSOR - Configuration for Video Motion Detection.



CAMERA TITLE

- **Covert** - Turns the on-screen display of the Camera ON/OFF. Covert Cameras continue to record, however the camera is not displayed on-screen. This feature is commonly used in situations where the Monitor is located in a public area, and a camera should not be displayed (i.e. Located in a Cash Count room, or directed at a Cash Register).
 - Displays the Camera in Covert Mode.
 - The Camera is not displayed - an empty blue screen is displayed instead of the Video.
 - Covert cameras are configured from the Menu.



CAMERA TITLE

The Camera Title menu controls the Covert Camera and Camera Title options.



- **Title** - Sets the name for the individual camera (0~9, A~Z) up to 11 characters, by using the Virtual Keyboard:
 - **Virtual Keyboard** - Appears when the Camera Title change is selected. Navigate with the arrow keys, and press ENTER to select a Number or Letter.



- **CAM #** - Indicates the Camera Number (corresponds to the DIN/ BNC connection port on the back of the system).

COLOR SETUP

Displays the settings for **Brightness, Contrast, Tint and Color** for individual cameras.



- Press the ENTER Button and select a camera setting’.
- Set the **Brightness, Contrast, Tint and Color** for each camera. These settings can be set to a range of 1(low)~100 (high)
- Press the **RETURN** button to return to the Camera Color Setup screen.



The bar displayed on the bottom of the Channel window allows the user to change each setting individually to achieve the best possible picture quality.

PTZ SETUP

PTZ Setup is for PTZ Type Cameras ONLY, which are not included with this system. For more information on PTZ Cameras, visit us on the web at <http://www.lorexcctv.com>.



- **Address** - Select the physical address setting of the PTZ Camera DIP Switches (From 0~255, refer to the Camera Manual for details).
- **PTZ Protocol** - Select the Protocol for the PTZ Camera. See the list of compatible protocols below. Consult the Owners Manual of the PTZ Camera for further details.
- **Baud Rate** - Setup for the PTZ Communication Speed: (2400, 4800, 9600,19200, 38400 BPS)

 Press to enter the Detailed PTZ Properties screen.

Compatible PTZ Protocols:

PELCO-D, PELCO-P, Samsung (MRX-1000), Samsung(SCC641), Honeywell(SD1), Lilin(Fastdome), Fastrax(11), D-MAX, Sunin DSC-230, Scan Dome-11, Vicon, Philips8560-700, Sensormatic, VRX-2101 Kalatel(KTD-312), EVI-D70/D100, HRX-2000, PTC-200C, Panasonic 950, Panasonic 604, GC-855N, HD800, FastTrax 11-2, PTC-400C, CBC, ZC-PT, VC-C4, LPT-A100L, DXR-50, DVR-Z1200, 130XR-Z2200, GSP, LG-Multi, CRX-1401 & HSD-251N

PTZ PROPERTIES

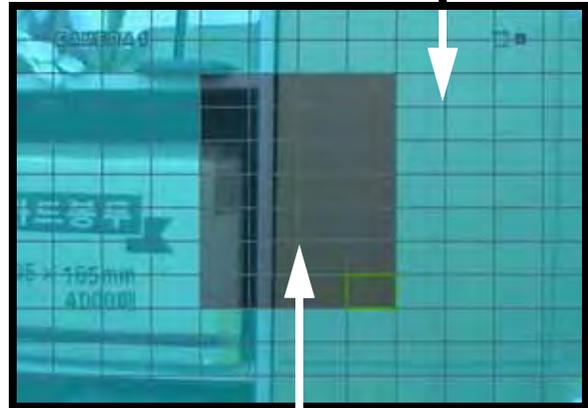


- **Channel No.** - Camera Number.
- **PTZ Driver** - The compatible driver selected for the PTZ Camera.
- **Auto Focus** - Sets the Automatic camera focus to ON/OFF.
- **Auto Iris** - Sets the Automatic Shutter to ON/OFF.
- **Speed Controls** - Sets the Pitch, Zoom, Focus and Iris speeds between 1~5.

MOTION SENSOR

- **Sensitivity** - Controls the Motion Sensitivity for the individual camera between 1 (low) ~ 10 (high).
- **Area Setup** - Opens the Area Setup for the camera:

Selected Areas are shaded in BLUE.



Deselected Areas are shaded in GREY.

AREA SETUP -

- Move the Cursor by using the directional arrows located on the Remote Control or using the Mouse.
- Press Enter to select or deselect a Region.
- Press the Return key to access the confirmation screen.



CONFIRMATION SCREEN -

- Select All** - Selects all areas (BLUE SQUARES)
- Deselect All** - Clears all areas (GREY SQUARES)
- Cancel** - Cancels Area Setup
- Save & Exit** - Saves the settings.

MOTION SENSOR



Sound Menu

The system Sound settings:

AUDIO - Settings for the system Audio for Live and Remote monitoring.

BUZZER - Settings for system Buzzer (audible alerts).



SOUND



The Sound Menu controls the Live Audio and Network Audio transfer.

SOUND

- **Live Audio** - Turns Live system Audio (from the Audio on the terminal) to ON/OFF.
- **Audio Monitoring Channel** - Select the channel for Listen-in Audio (Channels 1~4 ONLY).

NOTE: Listen In Audio only works with Channels 1~4. Other channels will send audio which will be Recorded.

- **Network Audio TX** - Sets Network Audio Transmission to ON/OFF.
- **Network Audio RX** - Sets Network Audio Receive to ON/OFF.

BUZZER



- **Keypad** - Turns the Keypad buzzer ON/OFF (when a key is pressed on the Panel).

System Menu

The System Settings controls contain:

DATE/TIME - Date and Time controls for the system.

NETWORK - Network and remote access controls.

MAIL - Mail setup

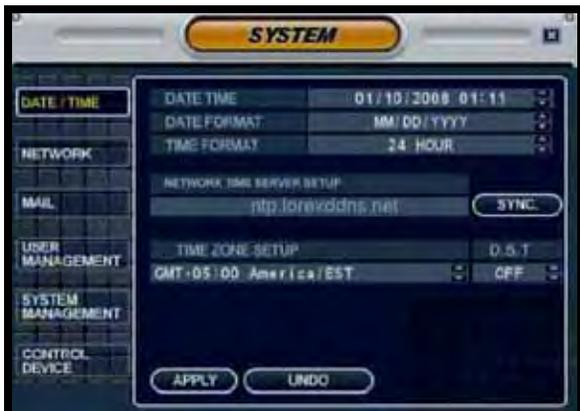
USER MANAGEMENT - Controls for system users.

SYSTEM MANAGEMENT - System specific settings and controls

CONTROL DEVICE - Settings for an external control device (such as a PTZ Keyboard).



DATE/TIME



DATE/TIME

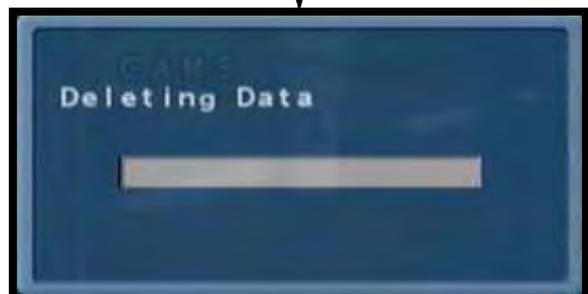
- **Date/Time** - Sets the current system Date and Time.*
- **Date Format** - Sets the Date Display format (MM-DD-YYYY, YYYY-MM-DD, etc.).
- **Time Format** - Sets the Time Display format to either 12 or 24 hour display.
- **Network Time Server Setup** - Synchronizes the system to the specified remote time server. Select the **SYNC** button to connect to the remote server and synchronize the time.

NOTE: Selecting the SYNC button will attempt to connect to the NTP server. If the server cannot be reached, a "Failure to Connect" message appears.

- **Timezone Setup** - Selections for the local Time Zone (i.e. EST, CST, PST). The **DST** (Daylight Savings Time) can be set to ON/OFF.

NOTE: MAKE SURE THAT THE DATE AND TIME ARE SET PRIOR TO RECORDING!

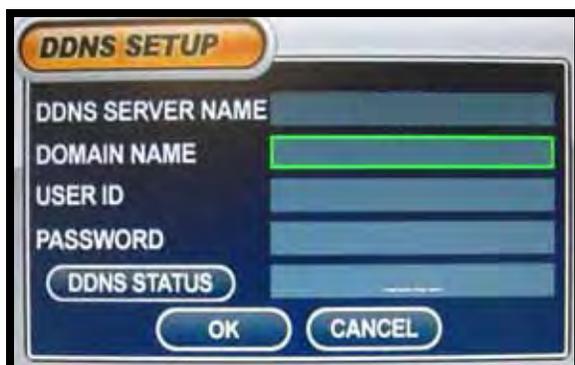
If the Date/Time is set into the past, a message will appear warning that Overlapped date(s) will be erased.



NETWORK



- **DHCP (Dynamic Host Configuration Protocol)** - Allows the system to receive Network Information from the DHCP Server (i.e. The local Router).
 - If DHCP is set to ON, the IP Address, Gateway and Subnet Mask will be assigned by the DHCP Server (i.e. The local area network Router. The Router is not included with this system).
 - If DHCP is set to OFF, the Network Information will need to be assigned manually.
- **DDNS (Dynamic DNS)** - Allows the system to be accessed using a fixed domain (website URL) without entering the IP address. Lorex offers a free web based DDNS Service for remote access at <http://lorexddns.net>
 - If you use the DDNS, there is no need to enter the IP Address with every connection.
 - Navigate to the DDNS website to configure the free account. Enter your specific information (as provided at the DDNS Site)
 - Refer to the Network Setup instructions in the Appendices for information on using the Free DDNS Service.



- **Web Service** - Allows the unit to be remotely accessed using Internet Explorer. This setting can be set to ON/OFF.
- **Max TX Speed** - Sets the default Maximum Data Transfer speed for the remote connection (default of 8192 KB/sec.).
- **Network (TCP/IP) Settings:**
 - **IP Address** - The IP address assigned to the system.
 - **Gateway** - The network Gateway assigned by the Router (or manually entered).
 - **Subnet Mask** - The network Subnet Mask assigned by the Router (or manually entered).
 - **1st / 2nd DNS Server** - Automatically detected if DHCP is set to ON. Displays the IP address of the local DNS Server (i.e. local Router).
 - **DDNS Server** - Set to the free DDNS Server provided by Lorex (<http://lorexddns.net>).
 - **Net Client Port** - Default port of 6100. Used for remote connection.
 - **Web Server Port** - Default port of 80. Used for remote connection.

MAIL SETUP

The Mail Setup can use either the Lorex Mail Server or your existing Email settings to send notifications and alerts



MAIL SETUP

- **Default Server** - Check to use the Default SMTP server provided by Lorex. Uncheck this option to configure the options using your own mail settings.

NOTE: You must sign up for the <http://lorexddns.net> DDNS to use the Lorex Mail Server.

The following settings are only needed if you are NOT using the Lorex Mail Server. Uncheck the 'Default Server' box to access the following:

- **SMTP Server** - Enter the Email server information for your IP.
- **Port** - Default port of 25
- **Security** - Sets the Mail Security ON/OFF (based on the requirements of the mail provider).
- **User** - Enter the User Name.
- **Password** - Enter the User Password
- **Test Email** - Tests the Email Configuration, and generates a SUCCESS or FAIL message.



USER MANAGEMENT



USER MANAGEMENT

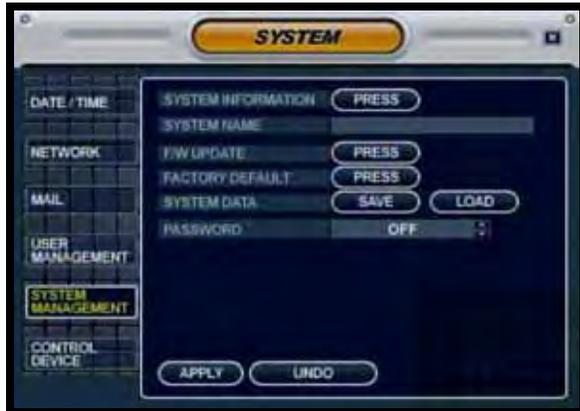
The User setup consists of 3 groups: Administrator, Manager or User.

Up to 7 new users can be added to the system. A maximum of 4 users can be remotely connected to the system simultaneously.

- **ADD** - Opens the ADD New User screen to configure the new user settings
- **User ID** - Enter an ID (Name) for the new user
- **Password** - Enter a password for the New User
- **Group** - Enter the permissions level:
 - **Admin** - Highest Level Access. The Admin has full system access. There is only one ADMIN, and additional ADMIN level users cannot be added.
 - **Manager** - Mid Level Access. The Manager can use the Search Functions, and view live video.
 - **User** - Low Level Access. The User Can view cameras without changing settings.
- **Email** - Enter the Email address for the New User.
- **Email Notification** - Turns the email notifications for the user ON/OFF.



SYSTEM MANAGEMENT



- **System Information** - Navigate to the PRESS button, and choose ENTER to display the System Information.

To display the System Information from the main Channel view screen, press the ENTER Key on the front Panel -or- Press the INFO button on the Remote Control.

- **System Name** - Input a name for the system using the Virtual Keyboard.
- **FW Update** - Navigate to the PRESS button, and choose ENTER to update the System Firmware.
- **Factory Default** - Navigate to the PRESS button, and choose ENTER to reset the system to Factory Defaults.
- **System Data** - Saves or Loads the System Data (system settings).
- **Password** - Turns the system password ON/OFF (when logging into the Menu Setup and Search Menus).

System Information Screen

Displays the System Information. The IP address and MAC address are necessary for setting up the DDNS Server.

System Information Screen

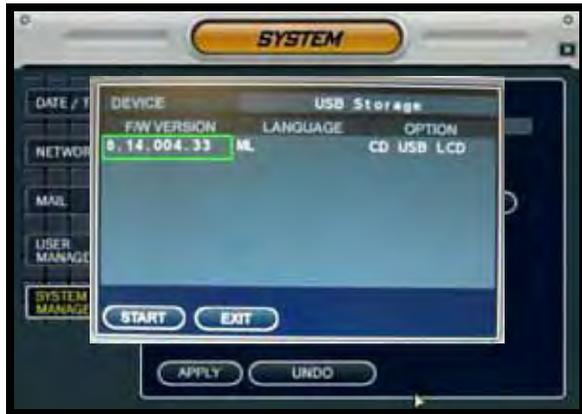


- **IP Address** - Displays the IP address assigned to the system.
- **MAC Address** - Displays the unique MAC address assigned to the unit. This address is hard coded to the unit and cannot be changed.
- **Disk Capacity** - Displays the Total Hard Drive space, and the amount of Hard Drive in use.
- **F/W Version** - Displays the Firmware and Hardware version numbers.
- **Video Signal Type** - Indicates the Video Signal Type as either NTSC or PAL (depending on Region).
- **DDNS Domain Name** - The name setup when the online DDNS registration was created.
- **Net Client and Web Ports** - Displays the ports for remote connection.

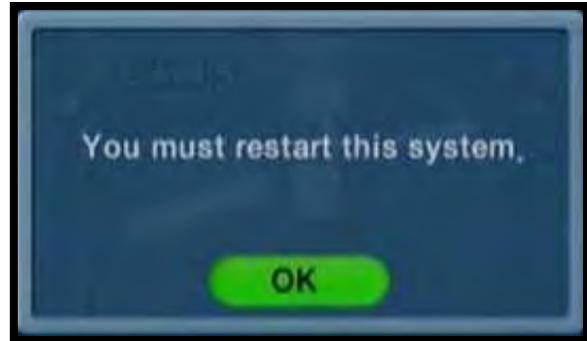
Firmware Update

New firmware is periodically available for download from the www.lorexcctv.com website.

The firmware on the unit can be updated via the USB port:



- The system must be restarted for the changes to take effect. Press OK, and exit the Menu. The system will automatically reboot.



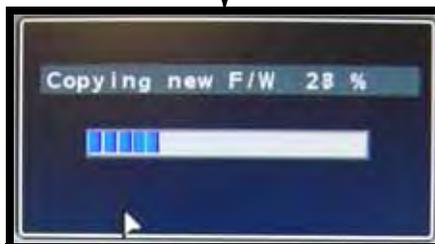
- Download the new firmware from the website. Copy the files from your PC to the USB flash drive.
- Connect the USB flash drive to the system. Select the 'Firmware Update' option by selecting the PRESS button.
- The USB device will be recognized by the system - Press the START button to display the available firmware.
- Select the firmware and press ENTER. A prompt will appear confirming the Update.
- Press OK to begin the update process.

NOTE: The system will need to be rebooted once the firmware has been updated for the new changes to take effect.

You can also upgrade your firmware over the network (from a remote location) using the provided Lorex Client Software.

This is useful if you are in a remote location, or if you would like to upgrade multiple units at different locations.

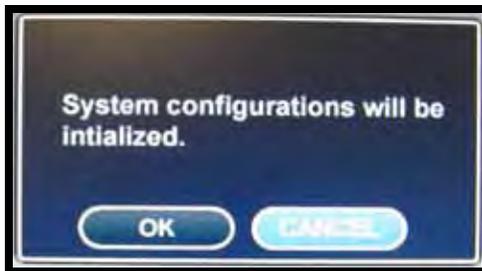
Please refer to the Lorex Client Software manual for details on performing a Remote Firmware Upgrade.



Factory Defaults

The system can be returned to the Factory default settings:

- Select the 'Factory Defaults' option by selecting the PRESS button.
- Choose OK to reset the unit, or CANCEL to exit without resetting.

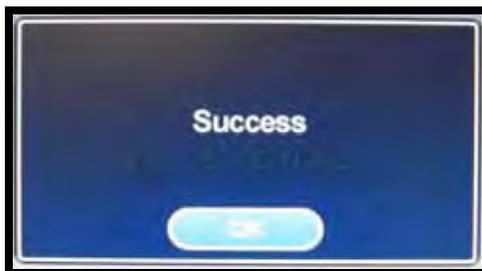


NOTE: If the system is reset to Factory Defaults, all settings will be lost (except the Date and Time).

System Data

The system settings can be saved to a USB flash drive:

- Connect the USB flash drive to the system and select the Save option to save settings:
 - A Success message indicates that the backup was completed.



- If the device is not detected, a message will indicate that No storage device was found.



- Connect the USB flash drive to the system and select the Load option to restore settings.

This is recommended after initial setup and installation is complete.

CONTROL DEVICE

Used with an external control device (not included with the system):



- **System ID** - Select system ID. (1~254). This is used to set a different ID number to the system (if used, reset the Remote Control ID to match the system ID).
- **Protocol** - Select protocol (from the Device user Manual).
- **Baud rate** - Setup baud rate (from the Device user Manual).

Event / Sensor

The Event Sensor Setting controls contain:



HDD EVENT - Checks the system's internal hard drive for errors.

ALARM IN - Configuration settings for an external Alarm sensor (i.e. Door / Window Sensors).

ALARM OUT - Sends a signal to an external device when an alarm is detected.

BUZZER OUT - Turns the audible Buzzer ON/OFF for selected event types.

E-MAIL NOTIFICATION - Sends an email notification when a selected event occurs (based on User Configuration settings).

HDD EVENT



HDD EVENT

- **Smart Alarm** - Sets the Smart Alarm ON/OFF. An alarm occurs when errors are detected with the drive.
- **Check Interval** - Sets the Hard Drive check interval (1~24 hrs). This setting allows the system to self-check the drive for any errors, and generate an Alarm if drive errors are found.

ALARM INPUT

Configurations for any external alarm device (i.e. a Door or Window Sensor).



- **Operation** - Sets the Alarm Sensor Connection Status (Enable/Disable) for an external alarm (i.e. Door or Window Sensors). Refer to the appendices for details.
- **Type:** Sets the Alarm Sensor type to N/O (Normally Open) or N/C (Normally Closed).

ALARM OUT

Sends an Alarm Out signal to a device (such as a Manual Door or independent Light/Buzzer Alarm) when an Alarm In event is detected



- **Channel** - Indicates all channels.
- **Operation** - Setup Relay Connect with Alarm Sensor to either Enable or Disable. Must be ENABLED to change the settings manually.
- **Mode** - Setup Reacted Relay as either Latched or Transparent Mode:
 - Latched – When sensor alarm activated, relay reacted in setup duration.
 - Transparent – Relay reacted temporary during sensor alarm activate.
- **Duration** - Sets the Reacted Relay Time. (5sec~5min or Until key-in)
- **Type** - Set the Relay Type to either N/O (Normally Open) or N/C (Normally Closed).
- **HDD Event** - Turns the Alarm ON/OFF when the Hard Drive experiencing problems.
- **CH1~16 Alarm** - Sends the Alarm Out when an Alarm Event is detected (set to ON/OFF).
- **CH 1~16 Video Loss** - Sends the Alarm Out when a Video Loss Event is detected (set to ON/OFF).
- **CH 1~16 Motion** - Sends the Alarm Out when a Motion Event is detected (set to ON/OFF).

BUZZER OUT

Generates a Buzzer when an alarm is detected.



- **Operation** - Enables / Disables the buzzer for selected Event / Alarm types. Set to ENABLE to change the following settings:
 - **Mode** - Set the Reacted Relay to either Latched or Transparent Mode.
 - **HDD Event** - Generates a Buzzer alert when a hard drive event occurs (set to ON/OFF).
 - **Duration** - Sets the Buzzer time (5sec ~ 5min or until a user logs into the system).
 - **Alarm** - Generates a Buzzer Alarm when an Alarm Event is detected (set to ON/OFF).
 - **Video Loss** - Generates a Buzzer Alarm when a Video Loss Event is detected (set to ON/OFF).
 - **Motion** - Generates a Buzzer Alarm when a Motion Event is detected (set to ON/OFF).

EMAIL NOTIFICATION

Sends an email to the specified users when the following events occur:



- **Notification** - Sets the email notification ON/OFF.
- **HDD Event** - A notification is sent if a hard drive event is detected (set to ON/OFF).
- Notifications can be enabled for each channel for:
 - Alarm
 - Video Loss
 - Motion can be selected

NOTE: Emails will be sent at 5 minute intervals for the duration of the Event.

Disk Management



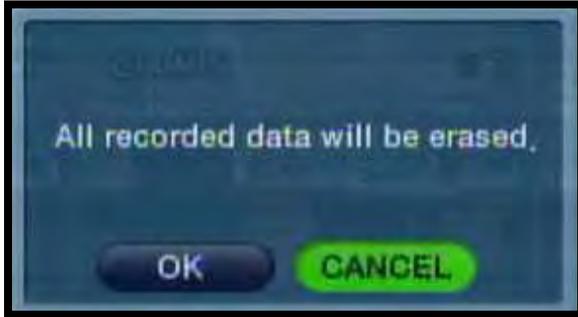
- **Record Time Limit** - Setup for the Recording Time Limit (OFF, 12h, 1~3 days, 1 week or 1 month).

NOTE: The Record Time Limit refers to the length of time data will be kept on the drive. For example:

The Record Time Limit is set to 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. The *OVERWRITE* feature must be ON for the Record Time Limit feature to work.

- **Overwrite** - Determines how data is maintained when the hard drive is full:
 - **ON** - When Overwrite is set to ON, data will be overwritten when the Hard Drive is full, starting with the Oldest recording, or based on the Record Time Limit settings.
 - **OFF** - When Overwrite is set to OFF, the data will not be overwritten when the Hard Disk is Full. Recording will Stop, and the Buzzer will be Activated.

- **Format** - Erases all hard drive data:
 - Press start button. A warning message will be displayed with the prompt 'All Recorded Data will be erased.'
 - Select OK to erase the data, or CANCEL to return without erasing the hard drive.



- Once OK is selected, the user will be prompted to enter the **ADMIN PASSWORD**. Once the password is accepted, all hard drive data will be erased.



Formatting Status Indicator Window:
Once the format is complete, the system will return to the Disk Manage Menu.

NOTE: After Formatting a hard drive with existing data, Playback of the old data is no longer possible.

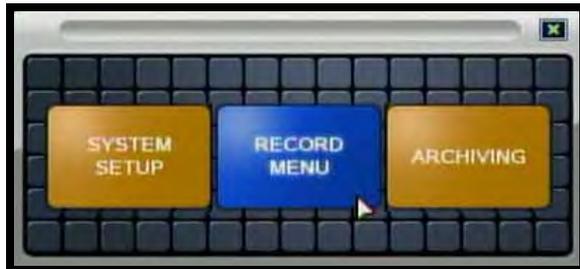
Recording Menu Controls

- Enter the **RECORDING MENU** screen by:
 - Pressing the **SETUP** button on the Remote Control
 - Pressing the **SETUP** button on the front panel, or
 - Selecting the **SETUP** option from the On-Screen Menu.

Enter the password if required using the Virtual Keyboard.



- Select the **RECORD MENU** option.



- To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.
- To exit the **MAIN MENU**, press the **RETURN** button.

NOTE: When configuring the Recording Settings, it is recommended that you use the mouse or remote control for navigation.

Alternatively, you can use the Client Software provided with this system to change the System Settings and Recording Configurations remotely. Please refer to the Client Software Manual for details.

Simple and Advanced Modes

This system allows you to configure the Recording Options in two ways:

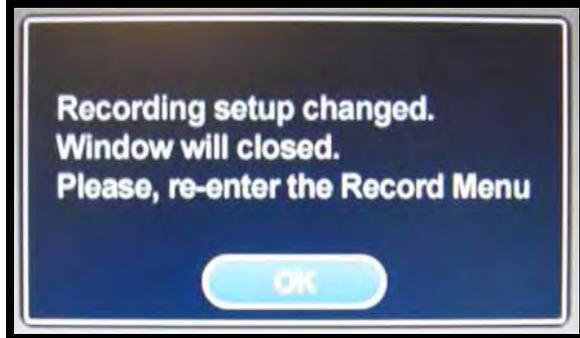
- **Simple Recording:** Simple recording will set all cameras to behave in the same way, with the same resolution and FPS. In Simple Recording, the recording type can be set to *either* Continuous, Motion, Alarm or None.
- **Advanced Recording:** Advanced recording will allow you to configure each camera to behave in a different way, based on quality, FPS and resolution. In Advanced Recording, the menus are separated so that you can set each camera to record in Continuous, Motion and Alarm at the same time.

For example, set the system to record in Continuous, Motion and Alarm at the same time. A camera will be in continuous recording, however when a Motion or Alarm event is detected, the on-screen indicator will switch to M or A, and the event will be logged in the system.

To switch between Recording Modes, change the Recording Mode setting on the **RECORDING OPERATION** tab to either Simple or Advanced.



Once the settings have been changed, a status window will appear indicating that the changes have been saved. Choose the OK button to close the status window and return to the Main Menu.



To return to the Record Menu, select the Record Menu button from the Main Menu selections.



Simple Recording Mode

Settings in the Simple Recording Mode affect all cameras at once (i.e. all cameras have the same FPS, Resolution, etc.). To set each camera separately, switch to Advanced Mode.



Simple Recording Mode

Recording Operation

The Recording Operation Menu allows the user to switch between Simple and Advanced Modes. The settings for Schedule Mode, Pre-Event Recording Time and Post-Event Recording Time cannot be changed. These settings can only be configured in Advanced mode.

Simple Recording

The Simple Recording Menu controls the Quality, Size and FPS for all cameras at the same time. Each channel can be set for a single Recording Type (Continuous, Motion, Alarm or None).

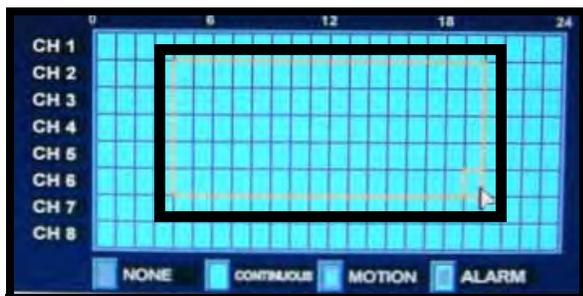


- **Recording Quality** - Sets the video recording quality to Low, Standard, High or Highest for all cameras.
- **Recording Size** - Sets the video capture size for all camera to 352x240, 704x240 or 704x480 for all cameras.
- **FPS** - Sets the Frames Per Second for recording across all channels. The FPS for the channels can be set to 1, 2, 3, 7, 15 or 30 Frames per second (real time video capture) from a shared pool of 240 FPS.

Simple Recording Mode

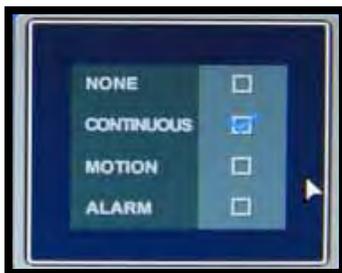
Select a single or multiple time blocks:

- **Mouse Control:** Click a single block to open the Recording Type Menu. Click and Drag a block of times to configure multiple channels and times at once.
- **Remote Control & Front Panel:** Navigate to the Channel Block section, and the entire block will be highlighted with a White outline:
 - Press the ENTER button to access the Time Blocks - the first hour on Channel 1 will be highlighted in Yellow.
 - Navigate to the desired time block, and press the ENTER button to activate the block - if a single block is desired, press ENTER a second time.
 - To select multiple blocks, use the arrows to drag the cursor until the desired time blocks are selected and press the ENTER key.



The Recording Selection menu will open. Select ONE of:

- None
- Continuous Recording
- Motion Recording
- Alarm Recording



Once a selection has been made, the Recording Selection window will close.

Advanced Recording

Recording Operation

The Recording Operation Menu allows the user to switch between Simple and Advanced Modes, set the Recording Schedule, and change the Pre and Post Event Recording times.



- **RECORDING MODE** - Changes the Recording mode from Simple to Advanced.
- **SCHEDULE MODE**- Sets the Scheduled Recording Mode to Daily or Weekly:
 - If you set the Schedule Mode to Daily, all settings made to the Continuous/Motion & Alarm Setup menus will affect all days in the same way.
 - If you set the Schedule Mode to Weekly, the settings can be set differently for each day of the week.
- **PRE EVENT RECORDING** - When an alarm is detected, the Pre Alarm will begin recording before the Alarm was detected (retrieved from video cache). The Pre Alarm Recording Time can be set to between 1~5 seconds.
- **POST EVENT RECORDING** - When an alarm is detected, the Post Alarm will remain recording for the specified time. The Post Alarm Recording Time can be set to between 5~180 seconds.



Advanced Recording

Continuous / Motion Setup

The Continuous/Motion Setup section controls the Recording settings for each camera individually (quality, resolution, frame rate and audio). Both Continuous (constant recording) and Motion (recording when motion has been detected by the system) are set in this menu.



- **PARAMETER MODE** - Contains the general recording parameters for each camera.
- **SCHEDULE MODE** - Contains the schedule recording settings for each camera.

Continuous / Motion Parameter

Parameters for each camera are set by hour using the Time Interval bar. Hours can be selected individually or in groups (by clicking and dragging several blocks).

NOTE: If Schedule Mode was set to Weekly earlier, a day selection option is available.



Continuous / Motion Parameter

Select an Hour (highlighted in ORANGE), and press ENTER again to open the Camera Settings for the selected hour, or select multiple blocks in a row and press ENTER.



Selected Block of Hours

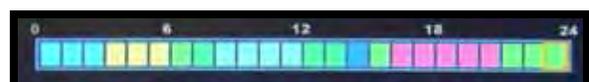
Once a time block or several blocks have been selected, the Channel Setup window is displayed.



- **Size** - Sets the video capture size for each camera to 352x240, 704x240 or 704x480.
- **FPS** - Sets the Frames Per Second for recording for each channel. Each channel can be set to 1, 2, 3, 7, 15 or 30 Frames per second (real time video capture) from a shared pool of 240 FPS. If the FPS drops below 0, the settings will not be saved.
- **Quality** - Sets the video recording quality to Low, Standard, High or Highest.
- **Audio** - Turns audio recording ON/OFF for 4 channels ONLY.

Once settings have been adjusted for the hour, the changed time block will be displayed in a different color on the Time Interval bar.

NOTE: Each different configuration will be displayed as a different color on the bar.

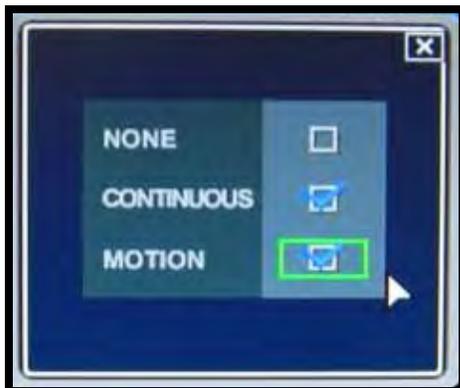


Continuous / Motion Schedule

Sets the Time or Motion recording for each channel (by hour). Select single or multiple time blocks:



- **Mouse Control:** Click a single block to open the Recording Type Menu. Click and Drag a block of times to configure multiple channels and times at once.
- **Remote Control & Front Panel:** Navigate to the Channel Block section, and the entire block will be highlighted with a White outline:
 - Press the ENTER button to access the Time Blocks - the first hour on Channel 1 will be highlighted in Yellow.
 - Navigate to the desired time block, and press the ENTER button to activate the block - if a single block is desired, press ENTER a second time.
 - To select multiple blocks, use the arrows to drag the cursor until the desired time blocks are selected and press the



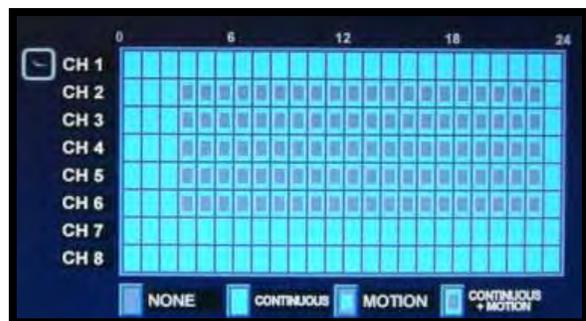
Select from:

- **NONE:** Recording is turned OFF.
- **CONTINUOUS:** Recording is always ON.
- **MOTION:** Only starts the recording if motion is detected in the selected time interval.

NOTE: This system has an Advanced Recording Feature where BOTH Continuous and Motion can be set to ON at the same time:

- The system will record continuously, but when motion is detected the system will display a **M** recording type on the relevant channel.
- The event will be logged as Motion in the system archive.
- This is useful in situations where you want to have continuous recording, but wish to have Motion detected for easier event searching.
- In addition, an email notification can be sent when Motion has been detected.

Select the RETURN button to apply the changes. Once the settings have been adjusted for the hour(s), the changed time block(s) will be shown based on the legend:



Legend:

- None
- Continuous
- Motion
- Continuous & Motion

Advanced Recording

Alarm Setup Mode

The Alarm Setup section controls the Recording settings for each camera individually (quality, resolution, frame rate and audio). Recording Settings for external alarm detection are set in this menu.



- **PARAMETER MODE** - Contains the general recording parameters for each camera.
- **SCHEDULE MODE** - Contains the schedule recording settings for each camera.

Alarm Parameter

Parameters for each camera are set by hour using the Time Interval bar. Hours can be selected individually or in groups (by clicking and dragging several blocks).

NOTE: If Schedule Mode was set to Weekly earlier, a day selection option is available.



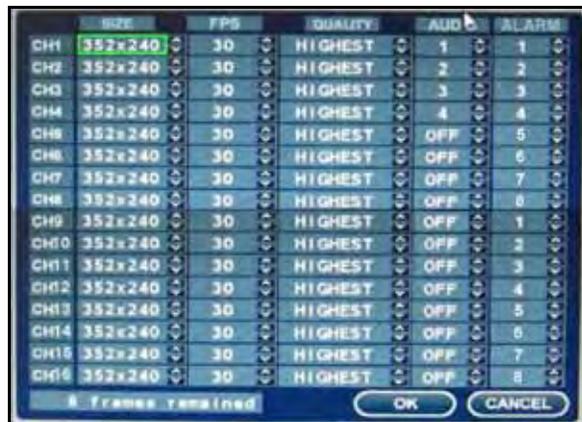
Alarm Parameter

Select an Hour (highlighted in ORANGE), and press ENTER again to open the Camera Settings for the selected hour, or select multiple blocks in a row and press ENTER.



Selected Block of Hours

Once a time block or several blocks have been selected, the Channel Setup window is displayed.



- **Size** - Sets the video capture size for each camera to 352x240, 704x240 or 704x480.
- **FPS** - Sets the Frames Per Second for recording for each channel. Each channel can be set to 1, 2, 3, 7, 15 or 30 Frames per second (real time video capture) from a shared pool of 240 FPS. If the FPS drops below 0, the settings will not be saved.
- **Quality** - Sets the video recording quality to Low, Standard, High or Highest.
- **Audio** - Turns audio recording ON/OFF for 4 channels ONLY.

Once settings have been adjusted for the hour, the changed time block will be displayed in a different color on the Time



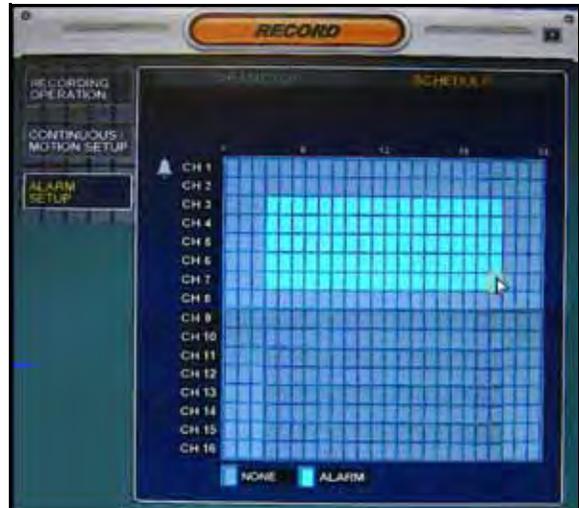
Alarm Schedule

Sets the Alarm Recording for each channel (by hour). Select single or multiple time blocks:



- **Mouse Control:** Click a single block to open the Recording Type Menu. Click and Drag a block of times to turn Alarm Recording ON or OFF.
- **Remote Control & Front Panel:** Navigate to the Channel Block section, and the entire block will be highlighted with a White outline:
 - Press the ENTER button to access the Time Blocks - the first hour on Channel 1 will be highlighted in Yellow.
 - Navigate to the desired time block, and press the ENTER button to activate the block - if a single block is desired, press ENTER a second time.
 - To select multiple blocks, use the arrows to drag the cursor until the desired time blocks are selected and press the ENTER key.
 - Alarm Recording will be turned ON or OFF.

Once the settings have been adjusted for the hour(s), the changed time block(s) will be shown based on the legend:



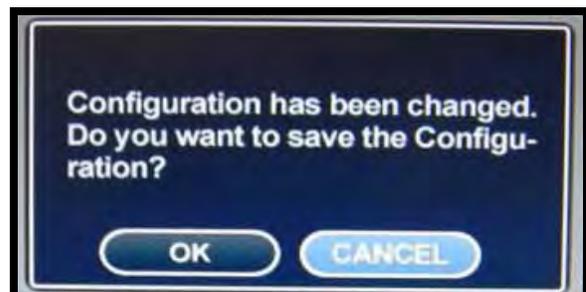
Legend:

- None
- Alarm

Saving the Settings

You will be prompted to save the settings when exiting a window (when changes have been made)

Click OK to save the settings, or CANCEL to exit without saving.

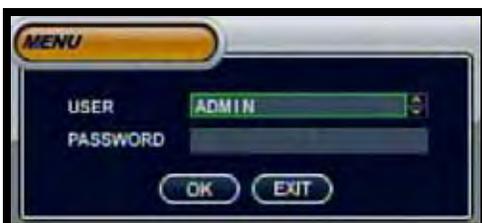


Archiving

The Archive feature copies data from the internal hard drive to USB backup media (such as a flash drive or external hard drive), optical drive (CD-RW/DVD-RW) or FTP.

NOTE: Make sure that you have removed all data from the USB device prior to backup.

- Enter the **ARCHIVING** screen by pressing the **MENU** button. Enter the password, and select the **ARCHIVING** option.



- Scroll through the options by pressing the **UP**, **DOWN**, **LEFT** and **RIGHT** buttons on the Front Panel or Remote Control.
- To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.
- To exit the **MAIN MENU**, press the **RETURN** button.

Archiving Options



- **Select Device** - Displays all detected backup media devices (USB flash drive or external USB hard drive), or allows the user to back-up data to a remote FTP Site.
- **From** - Select the Start Time and Date for Backup.
- **To** - Select the End Time and Date for Backup.
- **Mode** - Select the Backup Mode:
 - Burning - Copies the data to the backup device.
 - Burning/ Erasing - Copies the data to the backup device, then deletes the data from the System Hard Drive.
 - Select the **START** button to begin backup.
- **A/V channel** - Select the Video and Audio Channel(s) for backup

VIDEO

AUDIO
- **Title** - Sets the Title for the backup sequence using the Virtual Keyboard.
- **Event** - Attaches the **EVENT** Report text file to the backup.

Archiving Options

Once the Start Time, End Time and Channel Selections have been completed, select the START Button

A Drive Usage report will be displayed including Amount of space (in MB) needed, Start and End Times for Each Channel, with size of recordings (in MB) and Size of the Log File

	START-TIME	END-TIME	SIZE
ORIGINAL SIZE : 218 K			MODIFIED SIZE : 218 K
CH 1	01/10/2008 01:22	01/10/2008 01:33	213 K
CH 2	01/01/2008 01:33	01/10/2008 01:33	0 B
CH 3	01/01/2008 01:33	01/10/2008 01:33	0 B
CH 4	01/01/2008 01:33	01/10/2008 01:33	0 B
CH 5	01/01/2008 01:33	01/10/2008 01:33	0 B
CH 6	01/01/2008 01:33	01/10/2008 01:33	0 B
CH 7	01/01/2008 01:33	01/10/2008 01:33	0 B
CH 8	01/01/2008 01:33	01/10/2008 01:33	0 B
LOG	01/10/2008 01:22	01/10/2008 01:33	4 K

Select **OK** to begin the backup



The Writing status window displays the completion state of the Backup (in%)



The Extracting status window displays the completion state of the Extraction of previously archived data (in%)



The Erasing status window displays the completion state of the Erasing of previously archived data (in%)

Error Messages



Error dialogue when the archive process fails.



Error dialogue displayed when the backup device (USB) is not detected

Archive Backup to FTP

A schedule for data backup to a local or remote FTP can be configured on the system.

1. Choose FTP from the 'Select Device' dropdown menu.



2. Press the FTP Button to access the FTP Settings:



- **User ID:** Enter the User ID used to log into the FTP site.
- **Password:** Enter the Password used to log into the FTP site.
- **Address:** Enter the IP Address of the FTP site

- **Port:** Enter the Port used to connect to the FTP Site.

Press the FTP Test button to test the connection to the FTP site. A 'Success' or 'Fail' message will appear.

Once a successful connection has been made, the FTP Configuration Menu will be displayed:



- **Operation:** Set the FTP Backup to ON or OFF.
- **Device:** Set to FTP (as shown in previous instructions).
- **Mode:** Set the mode to Once (one time backup only) or Daily (data backup occurs every day at the time specified in the Start Time setting).
- **Start Time:** Set a time to begin the backup process.
- **From:** Set the starting time for the data archive.
- **To:** Set the ending time for the data archive.

For example, to back-up a retail sales day, set the 'From' time to 7 AM, and the 'To' time to 10 PM. Start the backup at 10:30 PM. This will archive 15 hours worth of data to the FTP site.

Search

Search mode allows you to locate previously recorded video by Date and Time, or by Event Type.

- Press the Search Button on the Remote Control or Mouse Menu.



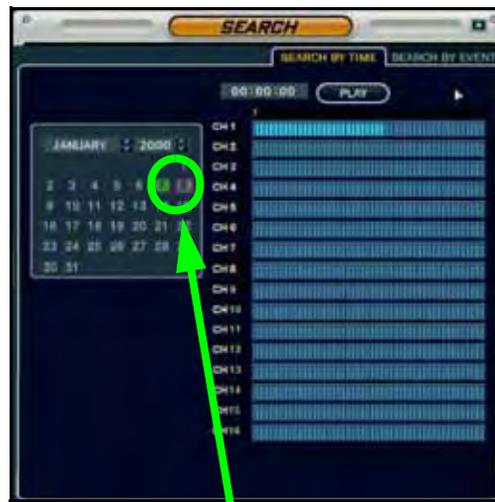
- Enter the User Name and Password (if required).
- Use the Left / Right arrows on the Remote Control, or click with the mouse to switch between the Search By Time and Search By Event screens.

Search By Date & Time

Searches the system based on date and time.

- Press the Enter button to access the Calendar (on the left side of the screen)
- Navigate within the calendar using the Arrow Keys on the front panel or remote control.
- Once the date has been located, press the Enter button to accept the date, and to access the Time Search (on the right side of the screen).

- Press and Hold the arrow keys to select the Time (increments of 1 minute). Pressing the button without holding will increment 15 minutes.



Any days highlighted with GREEN indicate that there is recorded video data.

- Press the Enter button to start the playback. Press the Return button to stop playback and return to the Search By Time screen.



The Date and Time will be displayed at the bottom of the screen. A playback icon will appear indicating that the unit is in Playback mode.

NOTE: The unit will continue to record data while in Playback Mode.

Search By Event

Searches the system based on Event Type (Alarm, Motion, Continuous or Others).

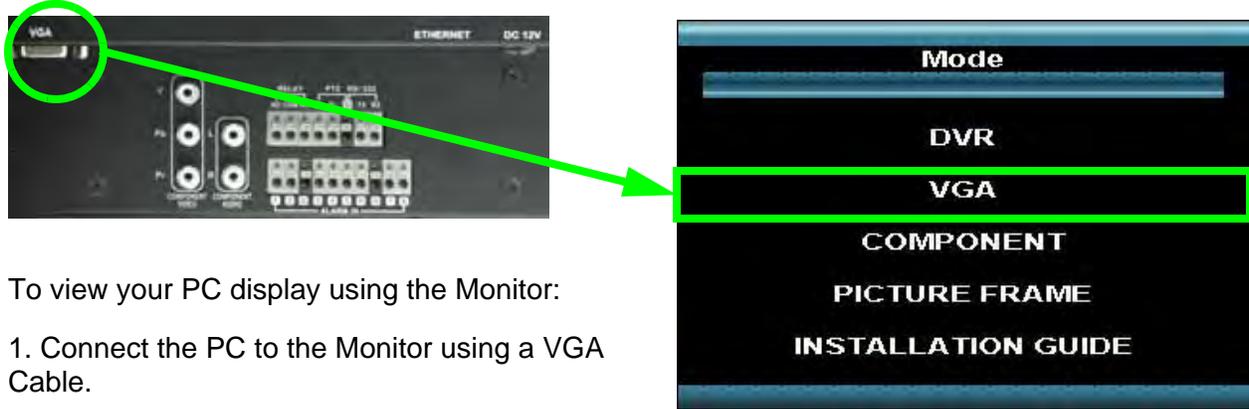
- Press the right arrow button on the front panel or remote control to access the Search By Event screen.
- Select From and To dates, Events (Alarm, Continuous, Motion and Other) and Cameras
- Navigate within the options using the Arrow Keys on the front panel or remote control. Press the Enter button to select or deselect options (Note: Multiple event types can be selected).
- Navigate to the Start button at the bottom of the screen and press the Enter button. A listing of events will be displayed.

Navigate to an event, and press the Enter button to start the playback. Press the Return button to stop the playback and return to the Event Search screen.



VGA Mode (Mode 2)

VGA Mode is used to display a device (i.e. a computer) connected to the VGA port on the rear panel of the monitor.



To view your PC display using the Monitor:

1. Connect the PC to the Monitor using a VGA Cable.

NOTE: A VGA Cable is not included with the system.

2. Switch the Monitor to VGA mode using the Multi-Function Mode Button on the front of the Monitor, or by pressing the VGA Button on the Remote Control.

NOTE: Press the PIP button to display the DVR in the bottom right corner.

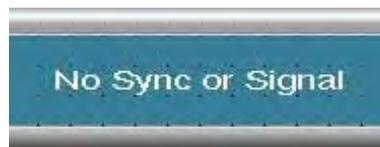


VGA Connection Errors

If the VGA cable is not correctly connected to the computer or system, several different error messages may be displayed:



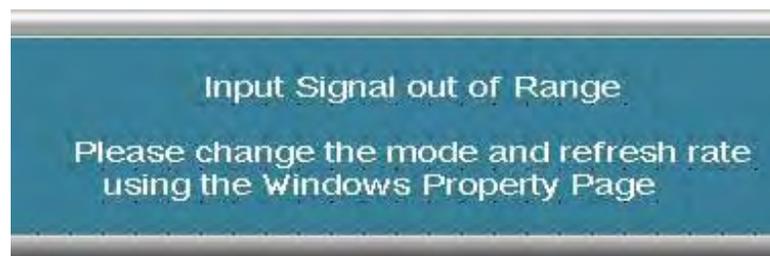
Cable Not Connected: Indicates that the VGA cable has not been securely fastened to either the system or PC.



No Sync or Signal: Indicates that the PC is not sending a good signal. Try changing modes on the PC.



Going to Sleep: Indicates that the system is not receiving a signal from the PC, and is going into hibernation. This does not affect the DVR functions.



VGA Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in VGA Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER:** Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE:** Return to DVR Mode.

4. **VGA MODE:** Change to VGA Mode.

5. **RETURN:** Exits from a System Menu.

6. **NAVIGATION:** Press the Navigation Controls to move Up, Down, Left or Right in the Monitor Menu.

7. **VOL +/-:** Increase or Decrease the volume of the camera currently broadcasting live audio.

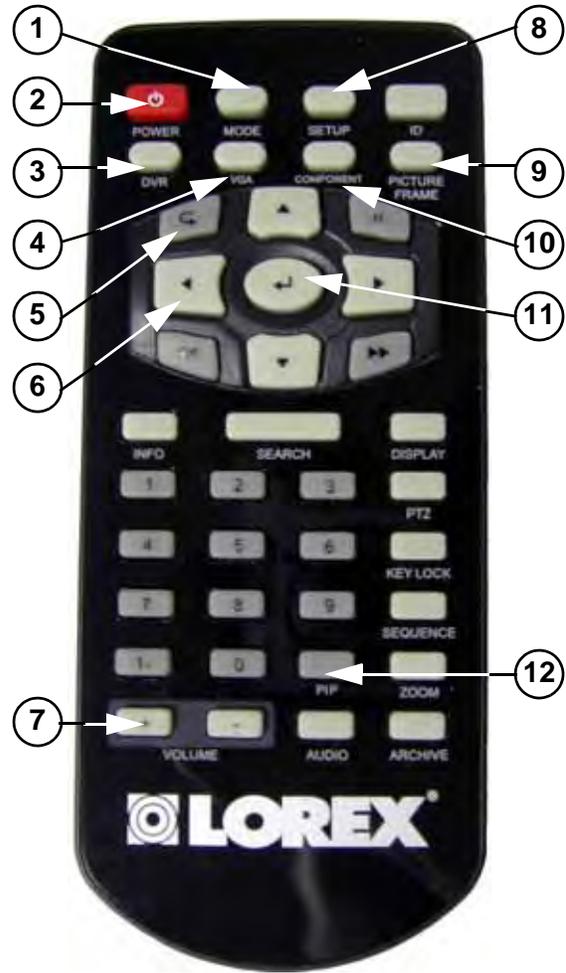
8. **MONITOR SETUP:** Displays the Monitor Setup Menu.

9. **PICTURE FRAME:** Change to Picture Frame Mode.

10. **COMPONENT MODE:** Change to Component Mode.

11. **ENTER BUTTON:** Press the Enter Button to select an option in the Monitor Menu. Also displays the DVR in PIP mode in the bottom right corner of the screen.

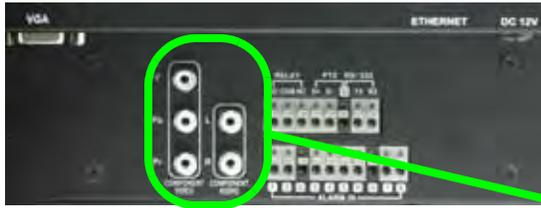
12. **PIP MODE:** Displays the DVR screen in the PIP Screen in the lower right corner.



1. Mode	7. Volume +/-
2. Power	8. Monitor Setup
3. DVR Mode	9. Picture Frame Mode
4. VGA Mode	10. Component Mode
5. Return Button	11. Enter Button
6. Navigation Controls	12. PIP Mode

Component Mode (Mode 3)

Component Mode is used to display a device connected to the component green, blue, and red inputs (Y/Pb/Pr) in high resolution (i.e. DVD Player, Set Top Box or Satellite Receiver). The audio from the component device is connected to the red and white audio inputs located to the right of the component inputs.



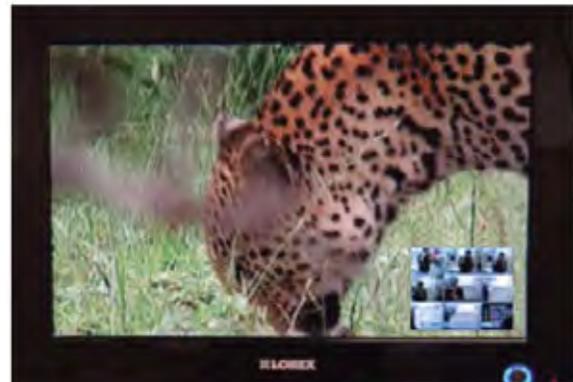
To view a DVD Player using the system:

1. Connect the DVD Player to the Monitor using a component cable.

NOTE: Component cables are not included with the system.

2. Switch the system to Component Mode using the Multi-Function Mode button on the front of the Monitor, or by pressing the Component Button on the remote control.

NOTE: Press the PIP button to display the DVR in the bottom right corner.



Setting Component (Component Mode) On Your DVD Player

Before connecting a DVD Player to the component inputs of the system, it is important to confirm that your DVD player has Component Outputs. Please refer to your DVD player's instruction manual for details on activating the Component Mode.

NOTE: If the Component Mode is not properly activated on your DVD player, you may see a color distortion (i.e. pink colored screen) on the display of the system.

Component Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in Component Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER:** Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE:** Change to return to DVR Mode.

4. **VGA MODE:** Change to VGA Mode.

5. **RETURN:** Exits from a System Menu.

6. **NAVIGATION:** Press the Navigation Controls to move Up, Down, Left or Right in the Monitor Menu.

7. **VOL +/-:** Increase or Decrease the volume of the camera currently broadcasting live audio.

8. **MONITOR SETUP:** Displays the Monitor Setup Menu.

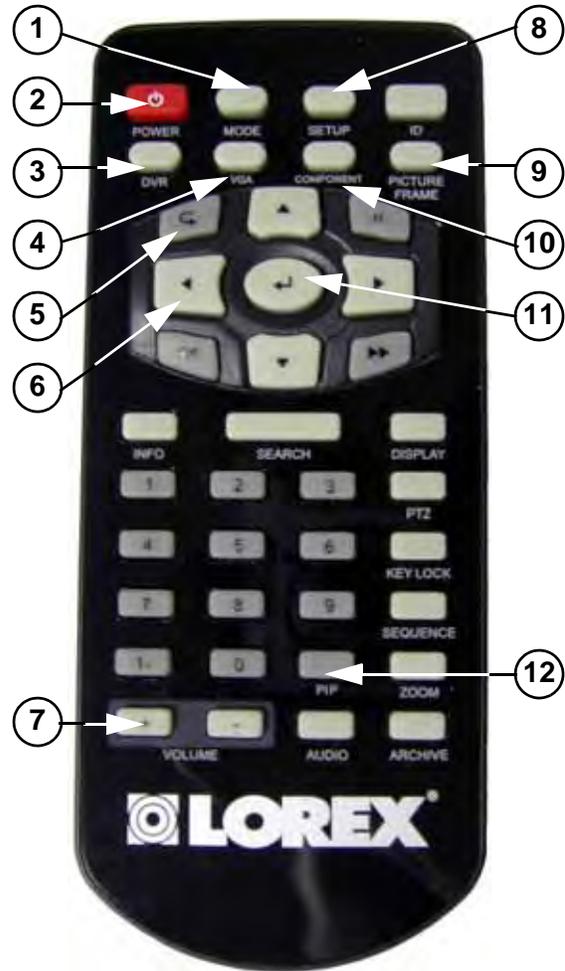
9. **PICTURE FRAME:** Change to Picture Frame Mode.

10. **COMPONENT MODE:** Change to Component Mode.

11. **ENTER BUTTON:** Press the Enter Button to select an option in the Monitor Menu. Also displays the DVR in PIP mode in the bottom right corner of the screen.

12. **PIP MODE:** Displays the DVR screen in the PIP Screen in the lower right corner.

NOTE: The Remote Control cannot be used to control the DVD Player, Set Top box or Satellite Box.



1. Mode	7. Volume +/-
2. Power	8. Monitor Setup
3. DVR Mode	9. Picture Frame Mode
4. VGA Mode	10. Component Mode
5. Return Button	11. Enter Button
6. Navigation Controls	12. PIP Mode

Picture Frame Mode (Mode 4)

Picture Frame Mode is used to display JPEG images located on a USB flash drive (connected to a USB port on the side of the system).



To view a JPEG images using Picture Frame Mode:

1. Connect a USB flash drive containing JPEG images to one of the USB ports on the left side of the system.

NOTE: A USB flash drive is not included with the system.

2. Switch the system to Picture Frame Mode using the Multi Function Mode button on the front of the Monitor, or by pressing the Picture Frame Button on the Remote Control.

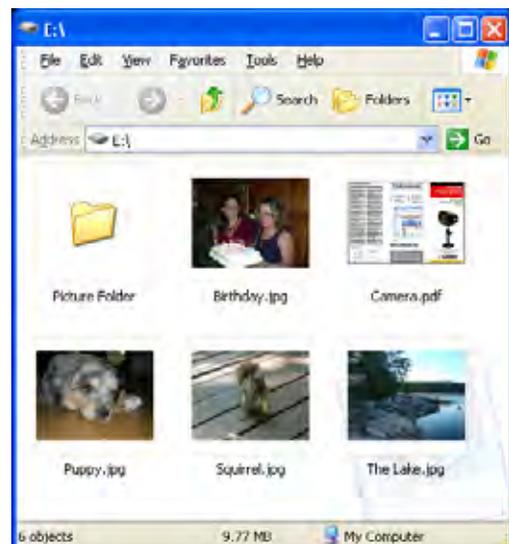
3. Configure the Picture Frame Menu to display the images.



USB Flash Drive Images

- Images must be in a JPEG file format (.jpg). All other files will not be recognized by the system, including other Image formats (i.e. BMP, GIF) or other file types (i.e. in the example on the right, the system will not display the "Camera.PDF" file).
- Images must be in the root of the drive. Files located in folders will not be recognized by the system (i.e. in the example on the right, any images located in the "Picture Folder" will not be displayed).
- The JPEG files should be a minimum of 640x480 pixels, and **a maximum of 1600x1200 pixels** to maintain image quality. Images with less pixels may appear distorted or pixelated when displayed. Using images with a pixel size greater than the minimum recommended size is encouraged.

NOTE: An Image Resizing program has been included with the Software CD.



Picture Frame Display

Images will be displayed in Picture Frame Mode (based on the Menu settings).

NOTE: Press the PIP button to display the DVR in the bottom right corner.



Picture Frame Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in Picture Frame Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER:** Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE:** Change to DVR Mode.

4. **VGA MODE:** Change to VGA Mode.

5. **RETURN:** Exits from a Menu.

6. **NAVIGATION:** Press the Navigation Controls to move Up, Down, Left or Right in the Monitor Menu.

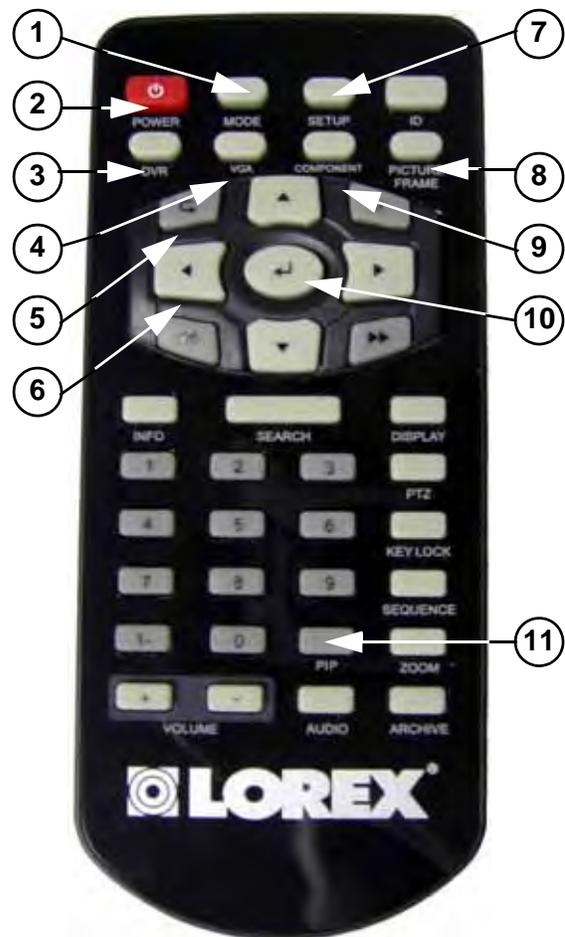
7. **PICTURE FRAME SETUP:** Displays the Picture Frame Setup Menu.

8. **PICTURE FRAME:** Change to Picture Frame Mode.

9. **COMPONENT MODE:** Change to Component Mode.

10. **ENTER BUTTON:** Press the Enter Button to select an option in the Monitor Menu. Also displays the DVR in PIP mode in the bottom right corner of the screen.

11. **PIP MODE:** Displays the DVR screen in the PIP Screen in the lower right corner.



1. Mode	7. Monitor Setup
2. Power	8. Picture Frame Mode
3. DVR Mode	9. Component Mode
4. VGA Mode	10. Enter Button
5. Return Button	11. PIP Mode
6. Navigation Controls	

Picture Frame - Menu

Connect the USB flash drive into the USB port on the monitor prior to starting Picture Frame Mode. If a USB flash drive is not detected by the system, the following message occurs:



If the USB flash drive does not contain .jpg files, the following message will be displayed:



Picture Frame Settings

Once JPEG images have been located on the USB flash drive, the Picture Frame menu opens.



NOTE: To display the Picture Frame menu, press the MENU Button on the front panel of the system.

Picture Frame Settings Menu

- **Device:** Displays information about the currently connected Image Device (USB flash drive).
- **Dwell Time:** Set the time for each picture to be displayed on-screen (in sequence). The dwell time can be set between 0 minutes (leave one image on-screen at all times) up to 60 minutes.
- **Aspect Ratio:** Set the aspect ratio for display to 4:3 or 16:9.
- **Thumbnail:** Click the PREVIEW button to display the images on the USB flash drive in a Preview Pane.



Use the Navigation Controls on the front panel or Remote Control, or use the mouse to select an image.

Click Previous or Next to scroll between screens containing the images on the USB flash drive.

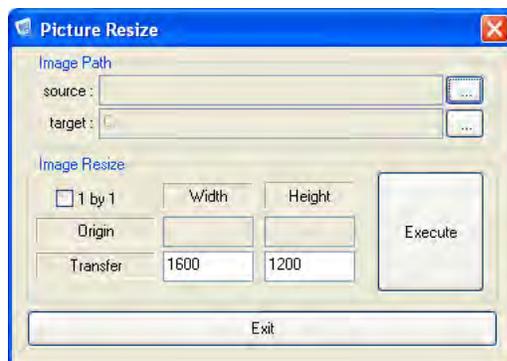
Press Enter to begin viewing in Picture Frame Mode.

Picture Resizing Application

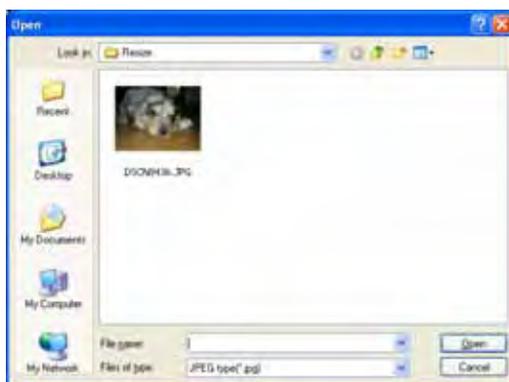
An application has been included on the Software CD to resize your JPEG images to 1600x1200 (highest recommended size), and save them directly to the USB flash drive.



1. Launch the application from the Software CD. The Picture Resize window will be displayed.



2. Click on the Source button to locate the directory where the JPEG files are located. Select a file, and click **Open**.



3. Click on the Target button to locate the directory where the JPEG files are to be saved (i.e. USB flash drive).

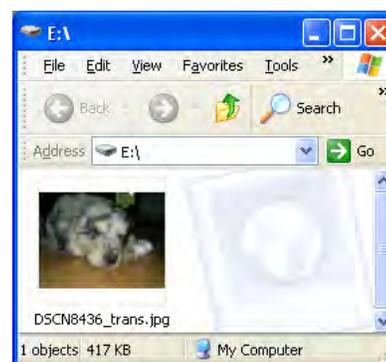
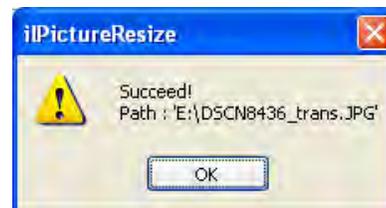


4. Select a location, and click **OK**.



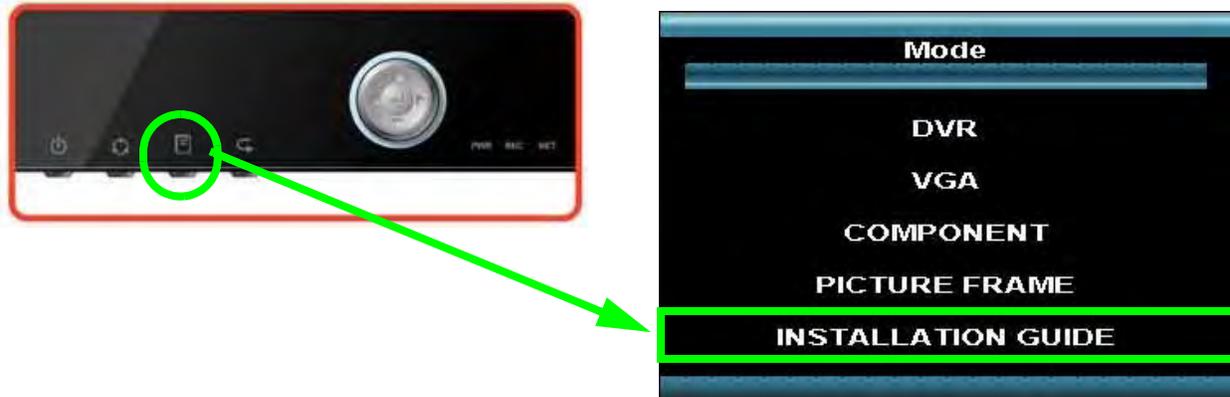
5. Once the Source and Target have been set, click **Execute** to resize and save the file. A Success message will be displayed.

NOTE: Resized files carry the naming convention originalfilename_**trans.jpg**



Installation Guide Mode (Mode 5)

The Installation Guide Mode is used to display the Installation Video included on the system hard drive.



To view the Installation Video using the system, press the Multi-Function Mode button on the front panel, or press the Mode button on the Remote Control and select **Installation Guide**. Using the mouse, click the on-screen playback controls to pause, rewind or fast forward the video. You can also press the playback buttons on the remote control.

The Installation video was loaded onto the hard drive that was pre-installed into the system. If you change the hard drive, the installation video will be no longer available. The video is also available on the Software CD provided with your system.

NOTE: The Installation Video is also located on the CD included with the system. The video can also be viewed online at <http://www.lorecctv.com/support> in the Installation Guides section.



Installation Guide Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in Installation Guide Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER:** Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE:** Change to return to DVR Mode.

4. **VGA MODE:** Change to VGA Mode.

5. **VOL +/-:** Increase or Decrease the volume of the camera currently broadcasting live audio.

6. **PICTURE FRAME:** Change to Picture Frame Mode.

7. **COMPONENT MODE:** Change to Component Mode.

NOTE: The Remote Control cannot be used to control the Installation Video playback.



1. Mode	5. Volume +/-
2. Power	6. Picture Frame Mode
3. DVR Mode	7. Component Mode
4. VGA Mode	

Monitor - Menu Settings

Press the Setup button on the remote control, or front panel of the system to enter the Monitor Setup Menu (when in VGA or Component Modes). The Monitor Setup Menu controls the behavior and look of the Monitor (i.e. changing the Brightness and Contrast will affect the Brightness and Contrast in all Modes).

NOTE: The mouse cannot be used to change values in this menu.

Image Settings



Use the Arrow keys on the front panel or Remote Control to select from Brightness, Contrast, Hue, Saturation, Sharpness or enter the Color submenu. Change the values using the arrow keys and enter.

NOTE: Hue and Saturation only adjustable in Component Mode.



Color Submenu



- **Auto Color:** Select Auto Color to allow the system to set the color of the monitor. Select YES to allow the system to set the color, or NO to exit.



- **Color Temperature:** Press the Left/ Right arrow buttons to select **USER**, **4200K**, **5000K**, **6500K**, **7500K**, and **9300K**.
 - To set color temperature manually, select **USER** and then press the ENTER button. Set the Red, Green and Blue Values using the arrow keys.



- **sRGB:** Set the sRGB to ON or OFF.

Display Settings



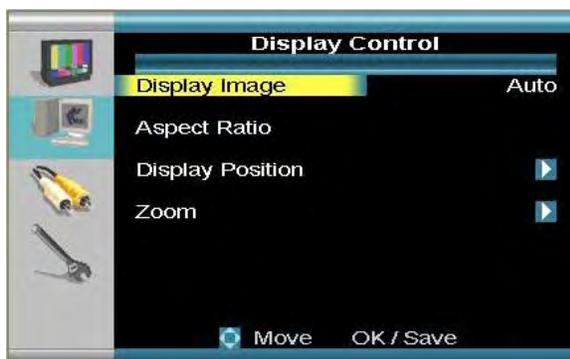
Use the Arrow keys on the front panel or Remote Control to select from Auto Configuration, Phase, Clock or Highlight Window. Use the enter key to access the Display Control or Scheme submenus. Change the values using the arrow keys and enter.

- **Auto Configuration:** Select Auto Configuration to allow the system to set the configurations of the monitor. Select YES to allow the system to set the color, or NO to exit.



- **Phase:** Set the phase for the system.
- **Clock:** Set the internal clock for the system.

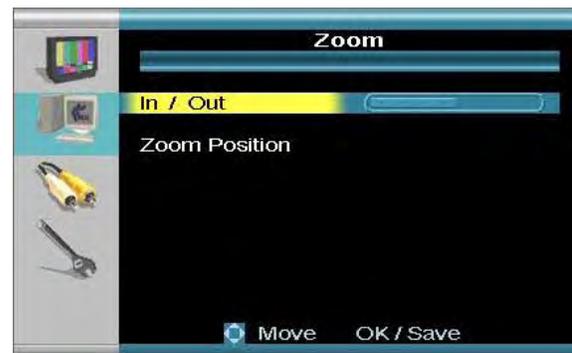
Display Control Submenu



- **Display Image:** Sets the image display to Auto or Manual.
- **Aspect Ratio:** Set the Aspect Ratio for the monitor.
- **Display Position:** Adjust the Horizontal and Vertical screen positioning.



- **Zoom:** Zoom the monitor display In or Out. Use the Set the Zoom Position option to change the location for the Zoom control.



- **Scheme:** Use the scheme controls to manually adjust the Red, Yellow, Green, Cyan, Blue and Magenta colors of the monitor.



- **Highlight Window:** Select Full, Half, Letterbox, or Half Letterbox.

PIP Settings



Use the Arrow keys on the front panel or remote control to select from PIP, PIP Input Select, PIP Size and Blend. Use the enter key to access the PIP Position or Pip Color Control submenus. Change the values using the arrow keys and enter.

- **PIP:** Turns the display of the PIP (Picture in Picture) ON or OFF. If you turn the PIP to OFF, the default DVR screen will not be displayed when the PIP button on the remote control is pressed.
- **PIP Input Select:** Select the input type for the PIP. By default, the unit will display the DVR screen.
- **PIP Size:** Change the display size to Small, Medium or Large.
- **PIP Position:** Change the location of the PIP window.
- **PIP Color Controls:** Adjust Brightness, Contrast, Hue, and Saturation for the PIP window.
- **Blend:** Adjust the transparency of the PIP window.

PIP Position Submenu

Use the Up, Down, Left and Right arrows to adjust the location of the PIP Screen. Press the Enter button to set, and the Return button to exit the menu.



PIP Color Controls Submenu

Use the Up, Down, Left and Right arrows to adjust the settings for Brightness, Contrast, Hue and Saturation. Press the Enter button to set, and the Return button to exit the menu.



Misc. Settings



Use the Arrow keys on the front panel or remote control to access the OSD Configuration or VGA Factory Reset submenus. Change the values using the arrow keys and enter.

OSD Configuration



Use the Up, Down, Left and Right arrows to adjust the settings. Press the Enter button to set, and the Return button to exit the menu.

- **OSD Timer:** Set the OSD Timer ON or OFF. If the timer is set to ON, the menu will automatically disappear after 30 seconds.

- **OSD Position:** Determines the position of the On-Screen Display window. Use the Up, Down, Left and Right arrows to adjust the location of the screen. Press the Enter button to set, and the Return button to exit the menu



- **OSD Transparency:** Set the transparency for the OSD Menu.
- **OSD Zoom:** Set the OSD Menu Zoom to ON or OFF.

VGA Factory Reset Submenu

Use the Factory Reset menu to return the Monitor settings to factory defaults.

Lorex Client 4.0



About Lorex Client

The Lorex Client software package allows you to access your system from a remote location and perform the following functions.

- View Live Video
- Search & Playback previously recorded video from the remote system
- Remote setup of your system
- Record video to your PC Hard Drive
- Archive & Backup video to your PC
- Playback data from Archive
- Perform Firmware Upgrades over the Network

System Requirements

The Lorex Client software (included with the system) has the following installation requirements.

Minimum System Requirements:

Operating System	Windows XP Home Edition Windows XP Professional Windows Vista
Processor	Pentium™ 4 - 1.5 GHz Processor (or equivalent)
Memory	256 MB RAM (512 Recommended)
Hard Drive	50 MB - Installation space required * Additional Hard Drive space required for recording. Recorded file size will vary depending on recording quality settings

Recommended System Requirements:

Operating System	Windows XP Home Edition Windows XP Professional Windows Vista
Processor	Pentium™ 4 - 3 GHz Processor (or equivalent)
Memory	1024 MB RAM
Hard Drive	50 MB - Installation space required * Additional Hard Drive space required for recording. Recorded file size will vary depending on recording quality settings

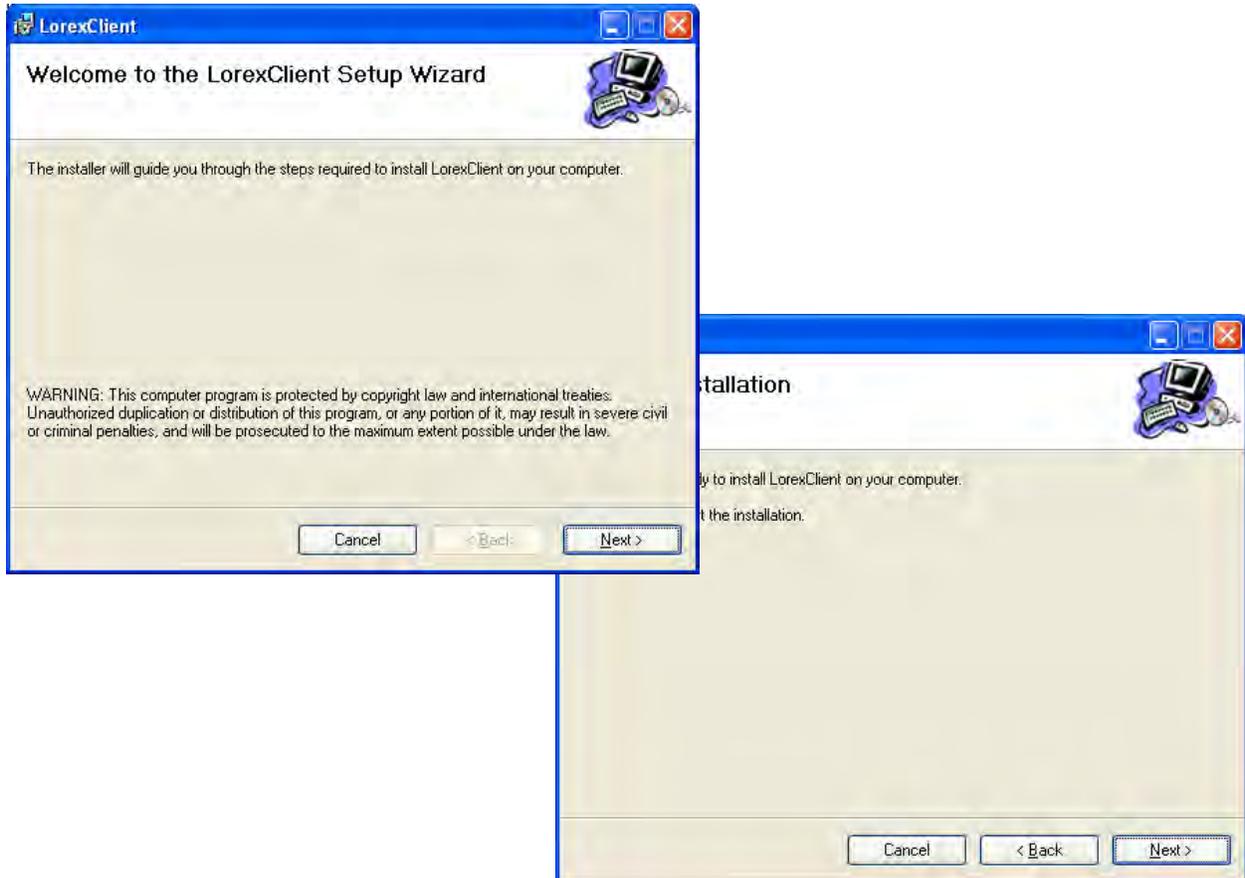


The Lorex Client Software is now Microsoft Windows Vista™ compatible. Visit us on the web at www.lorexcctv.com/support for the most current software version and product updates.

Software Installation

Insert the Lorex Client Installation CD in the DVD/CD-ROM Drive of your PC. The Software Install Wizard for the Lorex Client Software will begin.

1. Click the **NEXT** button on both dialogue windows to continue the Installation:



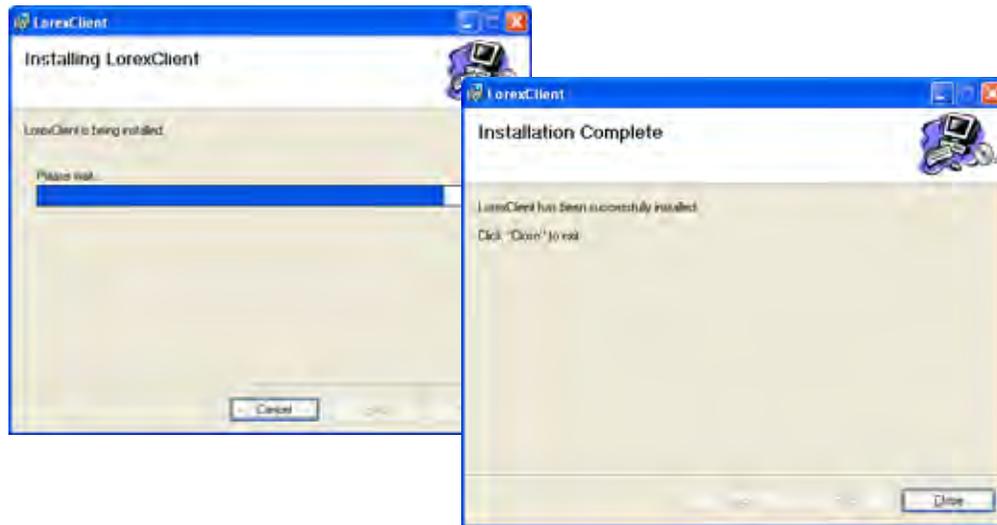
NOTE: If the Installation Process does not automatically start, you will have to begin the installation process manually:

- Double Click the **MY COMPUTER** icon on your Desktop
- Double Click the **CD-ROM DRIVE** (Drive Letter will vary depending on the number of drives in your computer)
- Double Click the **SETUP.EXE** file (may appear as **SETUP** with no file extension, depending on your system settings).

The Installation Process will begin.

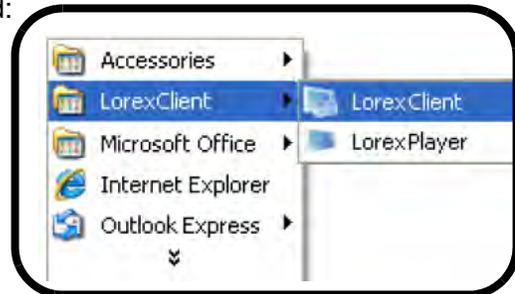


2. Click the **NEXT** button on both dialogue windows to continue the Installation:



NOTE: The following Program Shortcuts will be created:

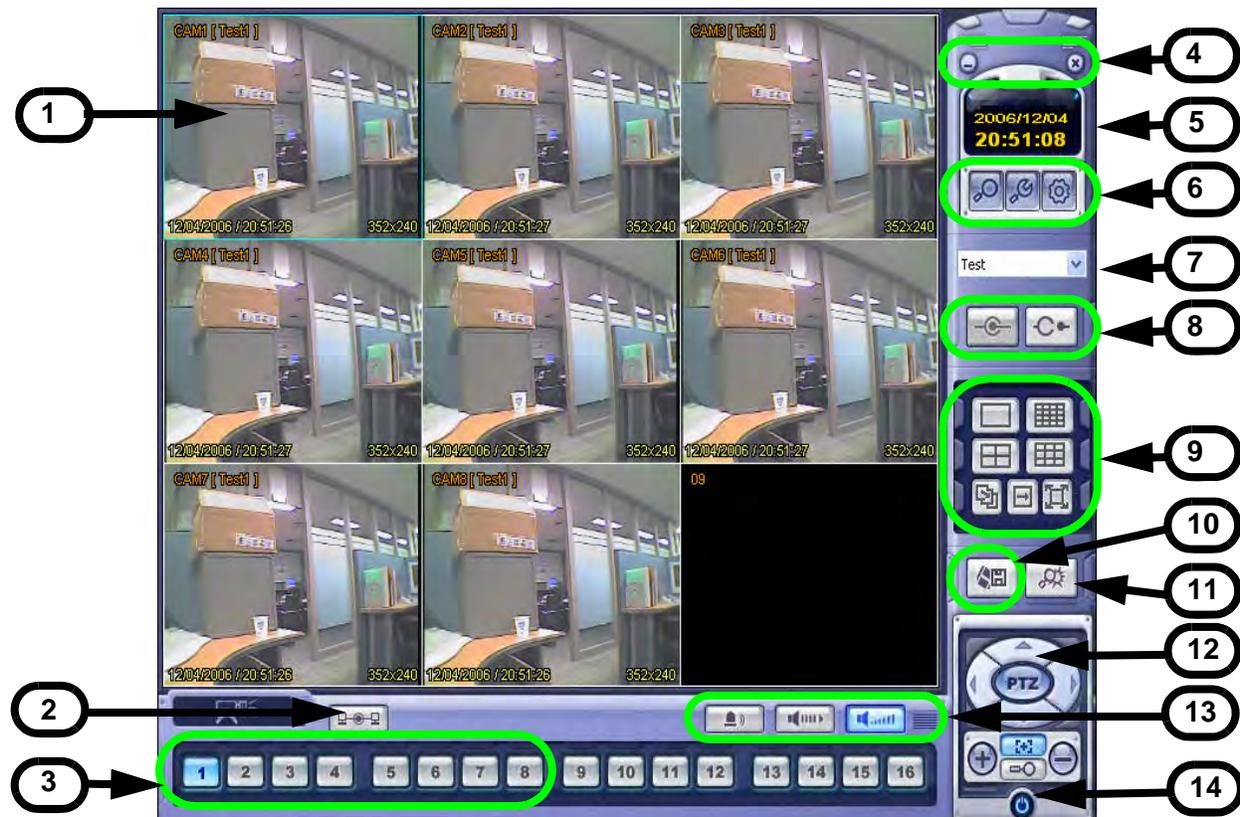
- Start Menu - Programs - Lorex Client
 - Lorex Client
 - Lorex Player



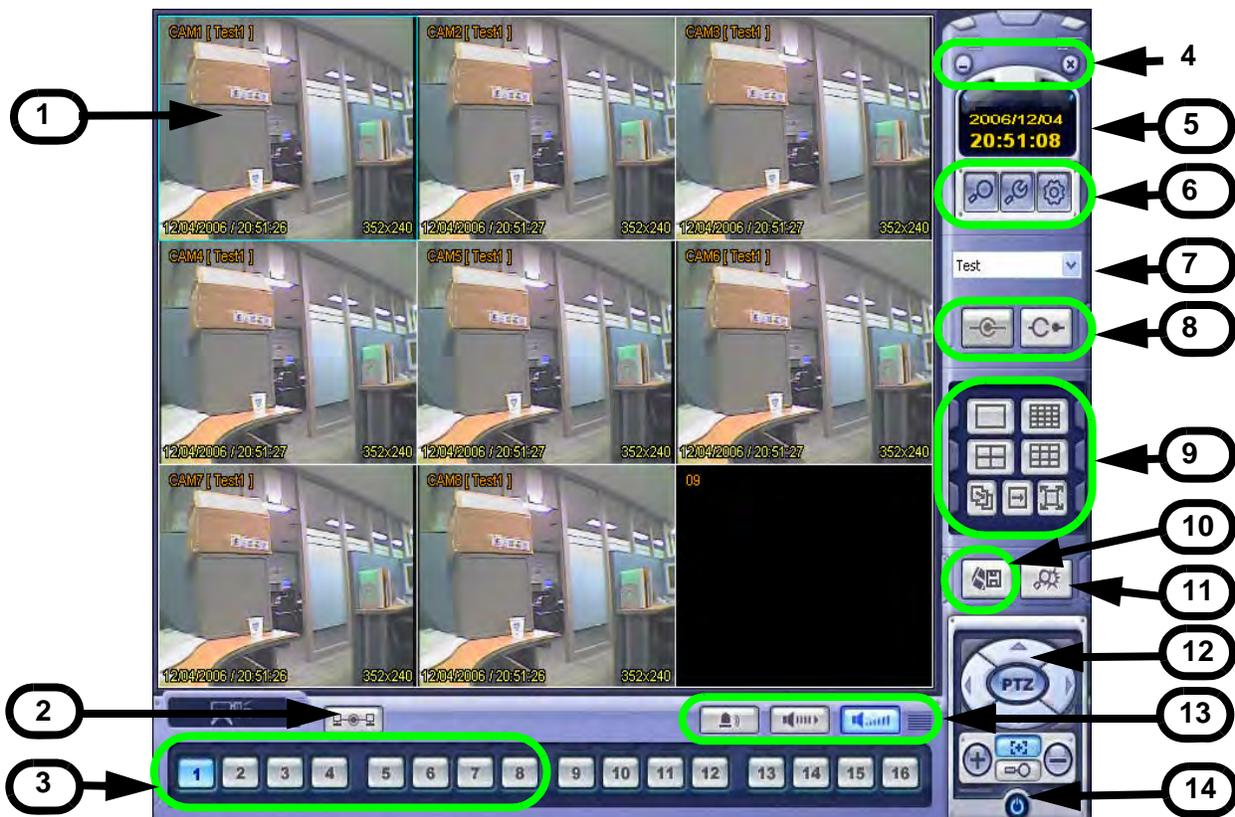
- Desktop Shortcuts for:
 - Lorex Client
 - Lorex Player



Lorex Client Software - Main Screen



1. **Main Screen** - Displays live Camera images (delays in images may be due to Network speed and connectivity strength).
2. **Connection Status** - Displays the system connection status.
3. **Camera Selection Buttons** - Displays the Connected Camera Number. Press buttons 1~8 to select a Camera Number for display.
4. **Minimize / Exit** -
 -  • Minimizes the Client Window
 -  • Exit Program.
5. **Time Display** - Shows the current Time & Date.
6. **Search / Setup Buttons** -
 -  • Search - Will Search for previously recorded video.
 -  • Local Setup - Configurations for Network Connection and Local Recording.
 -  • Remote Setup - Changes the setup on the remote system.



7. **DVR Selection** - Select the Connection ID for the System.

8. **Connect / Disconnect Buttons** -

-  • Connect: Connect to the remote System.
-  • Disconnect: Disconnects from the remote System.

9. **Screen Display** - Changes the Screen View (Single, Quad, 9, 16, Full screen, Sequence or Manual).

10. **Save to File** - Saves the currently displayed video to an AVI file on the local PC.

11. **Event viewer** - Displays the Event List and Image Search functions.

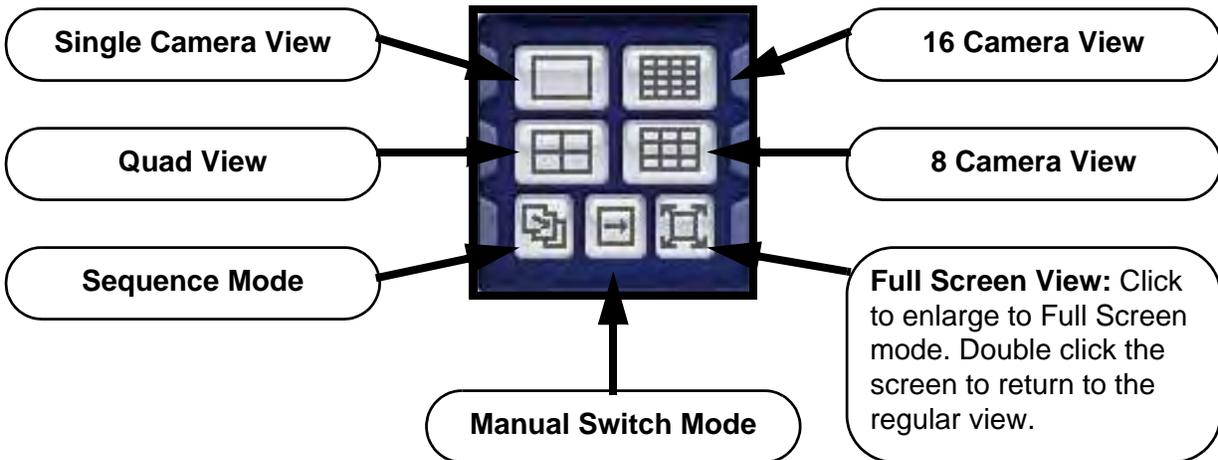
12. **PTZ Control Button** - Controls Cameras with PTZ & Focus configured (refer to the Instruction Manual for the System).

13. **Alarm and Audio Buttons** -

-  • Mic.
-  • Speaker Mute
-  • Alarm On/Off.

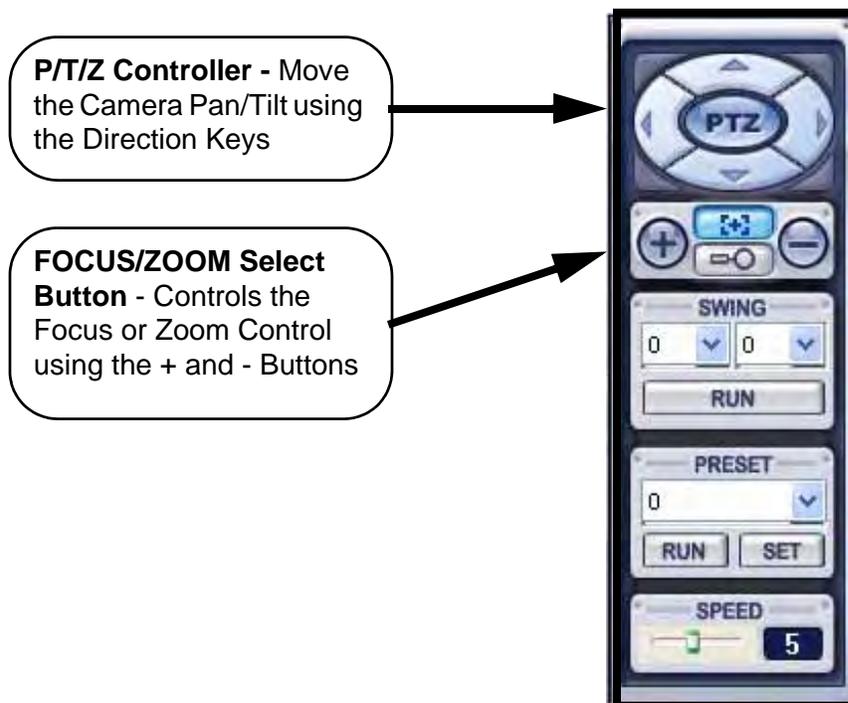
14. **Exit** - Closes the Lorex Client software.

Screen View Controls



PTZ Controls

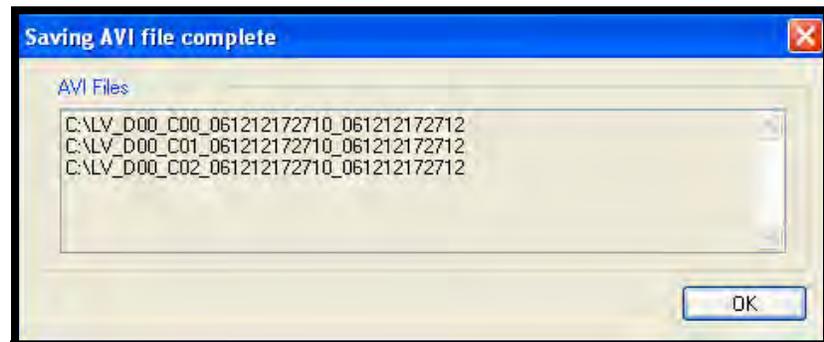
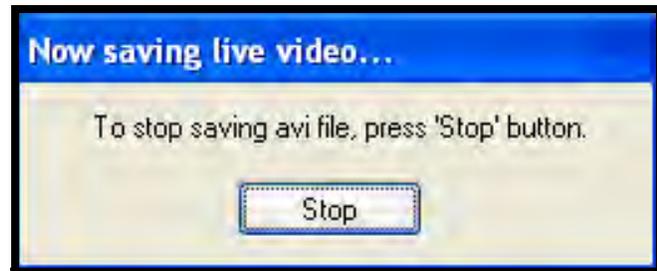
Press the PTZ Button to access the extended PTZ Menu:





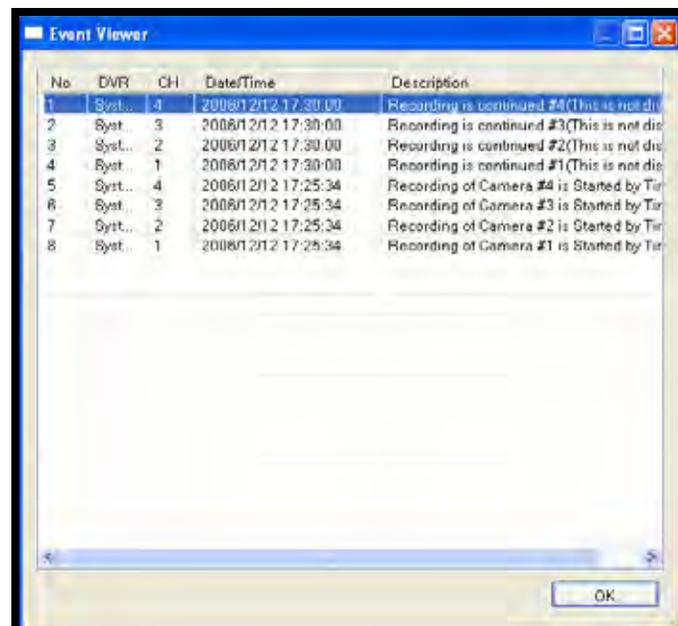
AVI File Conversion

- Press the AVI (Video) Save Button to start Video Recording to the local PC
- A dialogue box will appear while video is saving. Press STOP to end the video.
- A second dialogue box will appear, indicating the saved files. The files are saved in the default location specified in the System Setup.



Event Viewer

- **No** - Event order number
- **DVR** - Indicates the System name where the event originated.
- **CH** - Indicates the channel where the event occurred (if applicable)
- **Time** - Displays the Time and Date that the event occurred at.
- **Description** - A description of the event type.



Connection Manager



The Connection Manager contains the setup information to allow the user to remotely connect to the System.

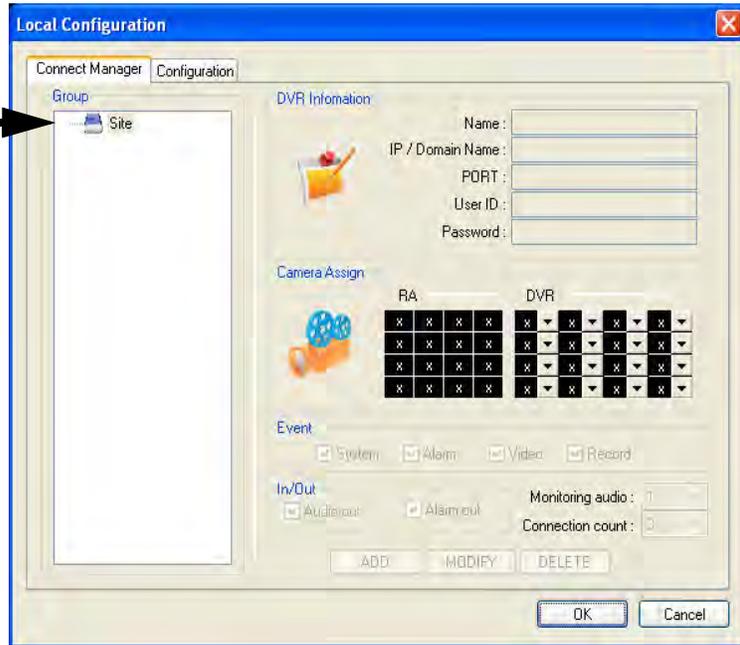
Adding a Group

Group - Right click on 'Site' to add a New Group.

A group can represent one or more Systems.

For Example, you may have more than one system in your office, so would name your group 'OFFICE'.

Each individual unit can then be configured separately for



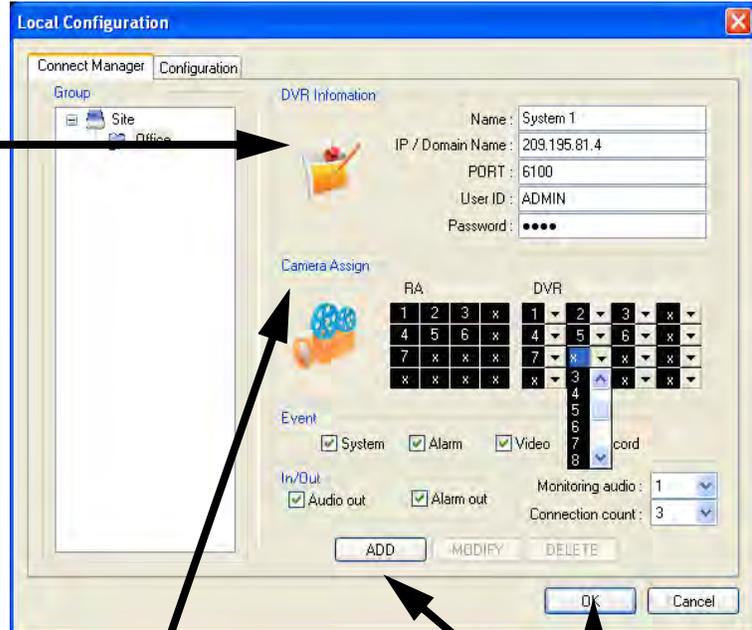
Enter a name for the Group.



Adding a Site (Individual Unit Configuration)

DVR Information - Enter the information specific to the unit (refer to page 30 for setup instructions):

- **Name** - Enter a name for the unit.
- **IP / Domain Name** - Enter the IP address or Domain Name for the System. This will vary depending on setup (Internal Network Connection or External Remote access through the Internet)- refer to page 30 for setup details.
- **Port** - Set to 6100 by default.
- **User ID** - Enter the USER ID to connect to the system (the USER ID is configured on the System - i.e. ADMIN - case sensitive).
- **Password** - The password used to access the System (i.e. The ADMIN password is set to 1234 by default).



Camera Assign - Set each camera to a portion of the 9-view window by using the drop down menu selections*

ADD Button - Adds the site to the Group.
OK Button - Accepts the changes and Closes the configuration Window

* **NOTE:** The Camera Assignment may already be completed for the first 4 cameras - if you wish to change the defaults or add additional cameras, use the dropdown selection to change the configuration.

Configuration Tab

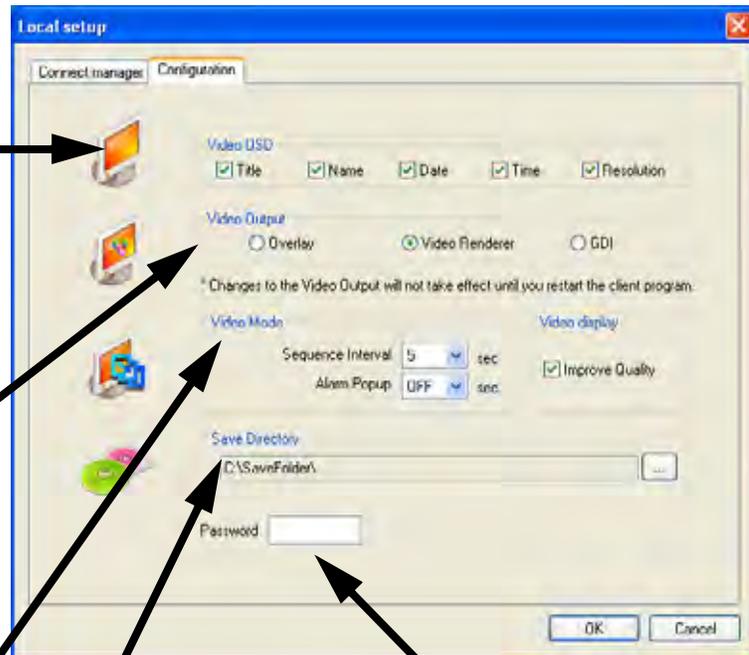
Video OSD - Sets the display options for the Video:

- **Title** - Displays the camera title
- **Name** - Displays the name of the Camera
- **Date** - Displays the date
- **Time** - Displays the time
- **Resolution** - Displays the video resolution

Video Output - Sets the Video Output type to Overlay Mixer, Video Receiver or GDI.

Video Mode - Sets the Video Mode:

- **Screen Switching Interval** - Sets the screen switching time for Sequence view.
- **Alarm Popup** - Sets the Display popup when an Alarm is detected on the system
- **Quality Improve** - Adjusts the Video quality



Password - Enter the System Password (1234 by default).

Modifying a Site

Left click on the selected Site (from the Group Listing) to access the settings.

DVR Information - Can be changed if desired.

Camera Assignments - Camera default positions can be reassigned if desired.

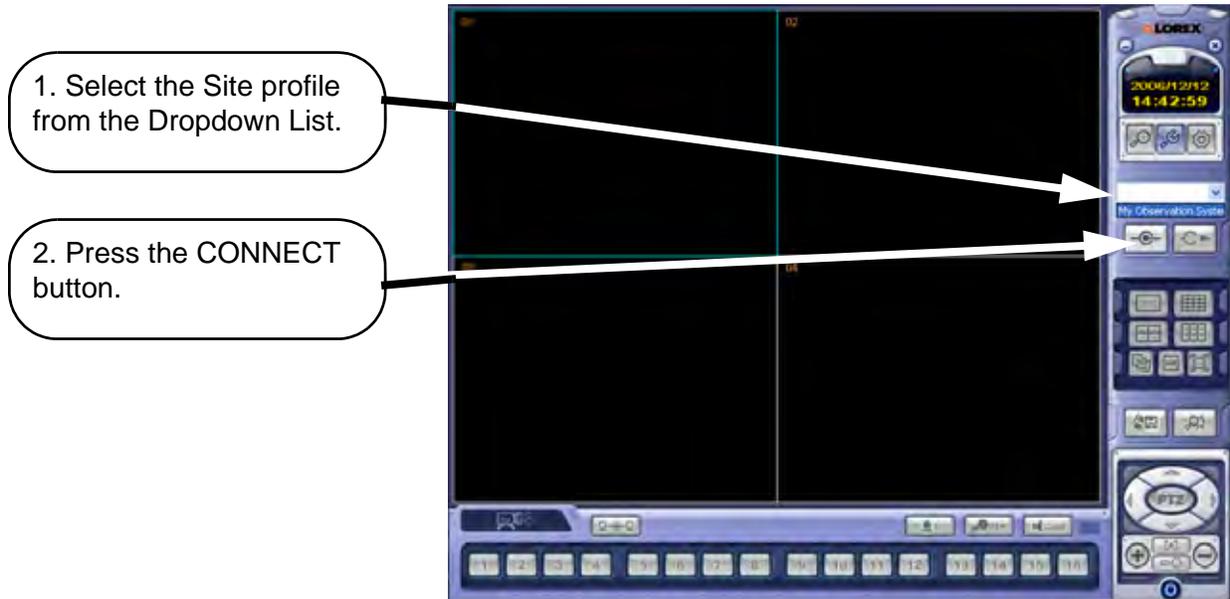
Event Selection - Selects the types of Events:
 • **System**
 • **Alarm**
 • **Video**
 • **Record**
 For detailed information on Events, refer to the System Instruction

IN/OUT Selection - Sets the Audio and Alarm out.
 • **Audio Out** - Sends Audio to the System
 • **Alarm Out** - Sends Alarm to the System
 • **Monitoring Audio** - Sets the default channel for Audio Monitoring.
 • **Connection Attempts** - Maximum number of connection retries.

MODIFY Button - Saves changes to the Site configuration.
DELETE Button - Deletes the site from the Group Listing
OK Button - Accepts the changes and Closes the configuration Window

Remote Connection

Once the site setup profile has been created, a connection can then be made to the System:



The Connection Status window displays the state of the connection.

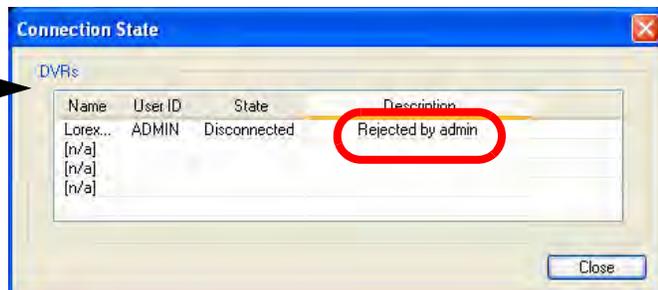
Once a successful connection to the System has been made, the black screen view will switch to Live Camera View mode.



Once a connection is made, the cameras will appear onscreen in Quad view mode.



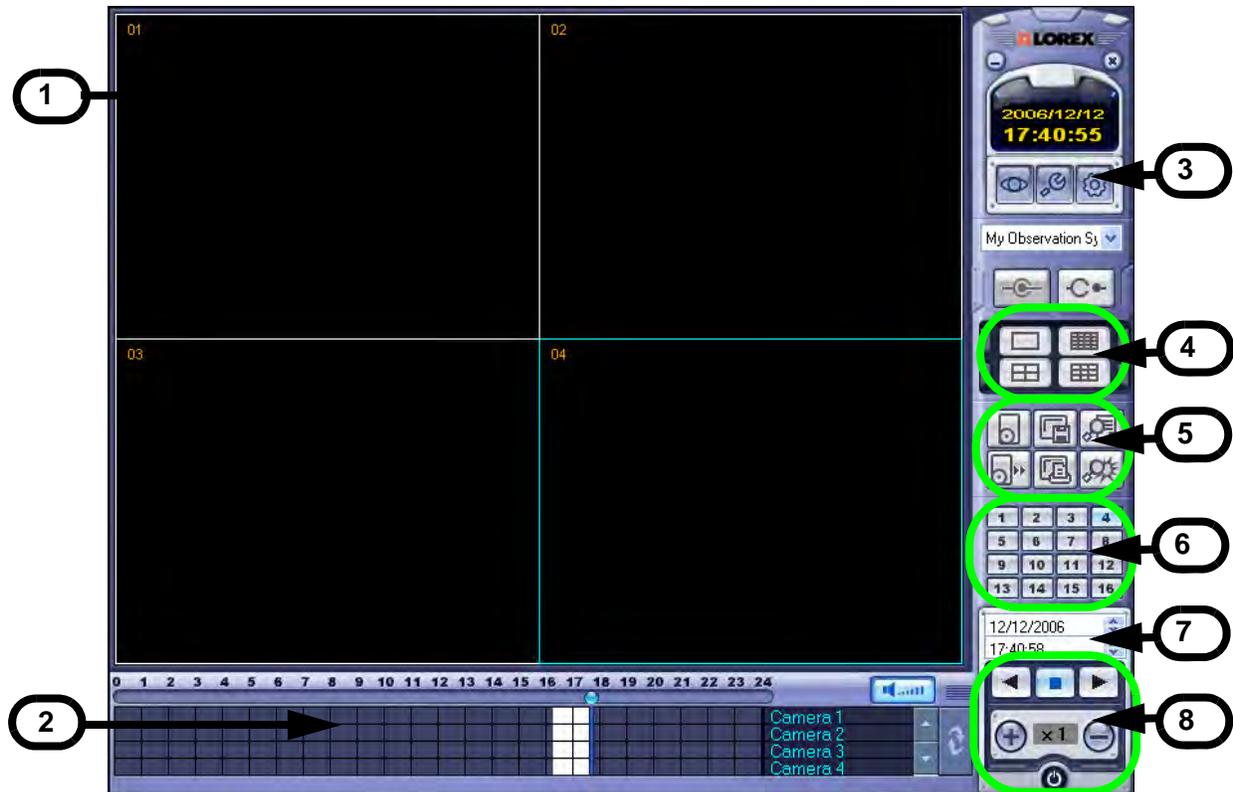
NOTE: If another user is connected to the System using the same credentials (i.e ADMIN), the connection will be rejected.



Search Functions

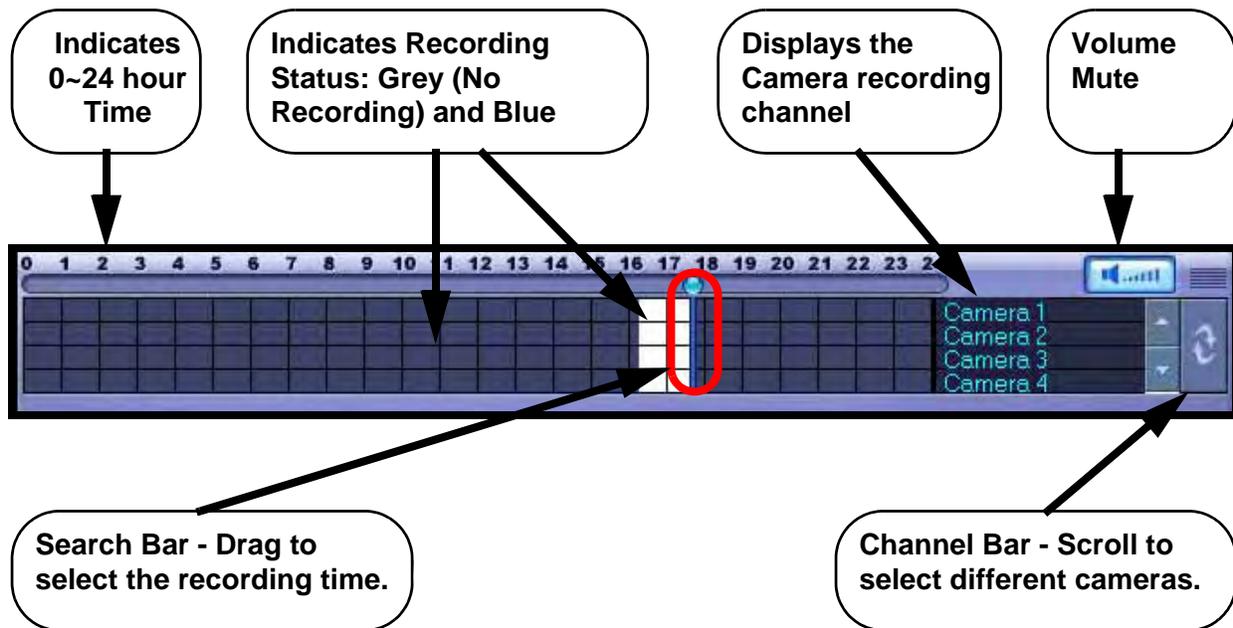


The Remote Observation Setup allows the user to search for video and events.



1. **Search Screen** - Displays the Selected Video.
2. **Search Bar** - Search & Display Camera Recording Times (24 hours).
3. **LIVE Button** - Return to Live Viewing Mode
4. **SETUP Button** - Access system settings.
5. **Screen Layout** - Change the display screen view.
6. **SEARCH** - Backup Video or Search for Events.
7. **Camera Selection Button** - Select individual cameras.
8. **Quick Search** - Find information by Date & Time.
9. **Search Controller** - Video playback controls

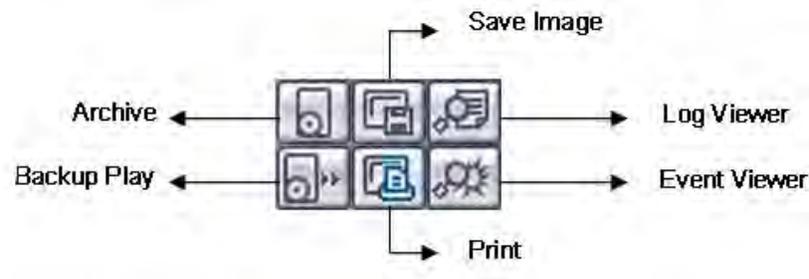
Event Viewer



Search By Time



Search Options



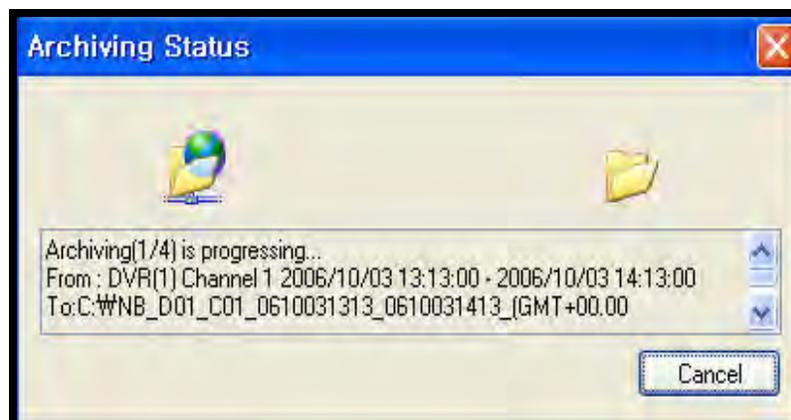
Archive

Copies a backup of the video data from the System to the local PC.

- **Time Range** - Set the start and end times for backup.
- **Channel** - Select channels to Backup.
- **Include Audio** - Includes Audio with the video backup.

Press OK to start the backup. A status window will appear for the backup process.

Once complete, the window will disappear and the data will be saved in the designated folder.



Remote Setup



The Remote Setup allows the user to make changes to the system from a remote location.

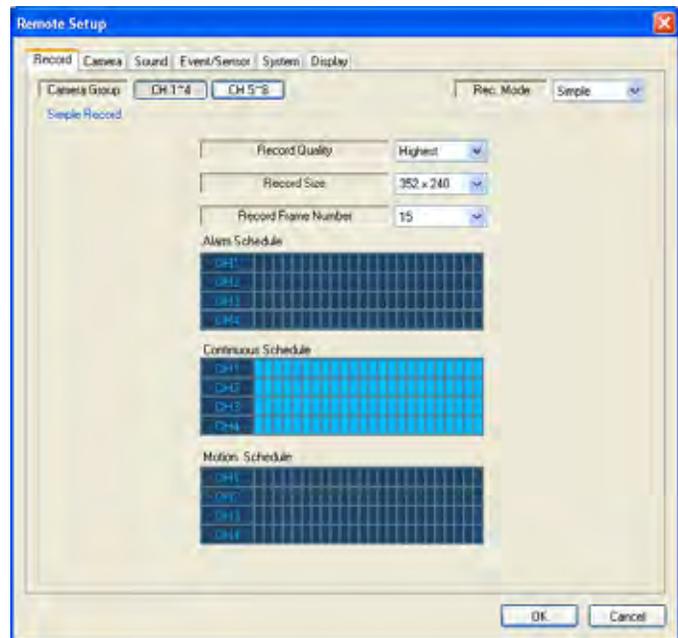
Entering the System Password

Checking Authority - To change the Remote System Settings, the user is required to re-enter the ADMIN password, and press OK.



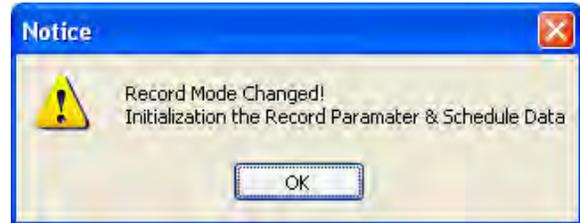
Recording Setup - Simple

- **Record Mode** - Select the Recording Setup type (Simple or Advanced configuration).
- **Camera Group** - Select Cameras 1~4 or 5~8 for setup.
- **Record Quality** - Sets the Recording Quality. Select HIGHEST, HIGH, STANDARD or LOW.
- **Record Size** - Sets the Recording Size (video display). Select 352x240, 704x240 or 704x480.
- **Record Frame Number** - Sets the Recording Frame Rate. Select 1, 2, 3, 7 or 15 FPS
- Use the Mouse to select or deselect Schedule options (Blue Highlighted blocks indicate that the segment is Selected).

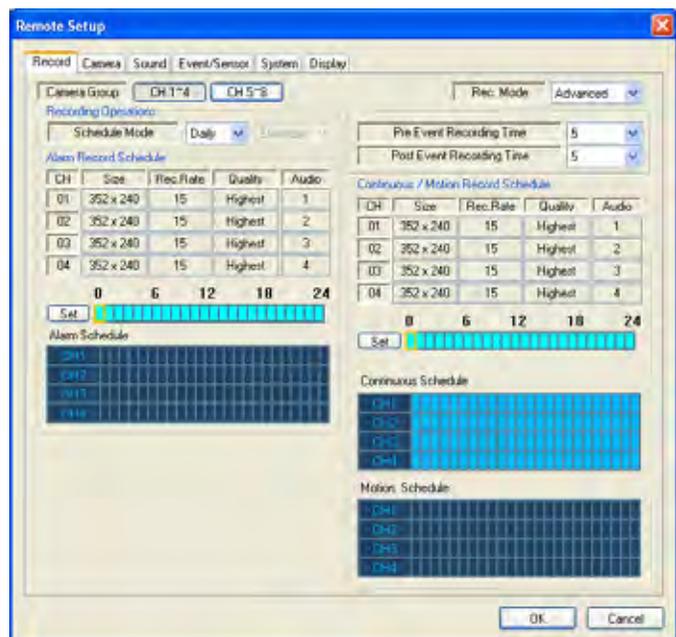


Recording Setup - Advanced

Select the Advanced option from the Record Mode dropdown menu. An window will appear to indicate that the Mode has changed.



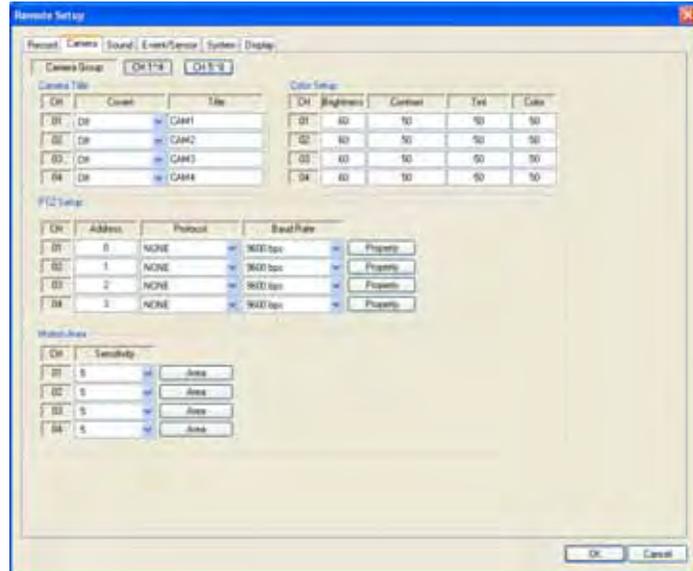
- **Camera Group** - Select the Channel Area (CH1~4 or CH5~8)
- **Schedule Mode** - Set to Weekly or Daily. When the System is set to weekly mode, set each day individually
- **Pre Event Recording Time** - Sets the Pre-Event Recording Time (between 0 ~ 5 Seconds). The Pre-Event records the data that occurred before the Event occurred. Refer to the System Instruction Manual for more details.
- **Post Event Recording Time** - Sets the Post-Event Recording Time (between 5 ~ 180 Seconds). The Post-Event records the data that occurred after the Event occurred. Refer to the System Instruction Manual for more details
- **Alarm / Continuous / Motion Record Setup** - Click the "Set" Button to setup the Cameras for Alarm, Continuous and Motion Recording: Set the Size, Recording Rate. Quality and Audio for each camera. Press OK to save the Settings.
- **Alarm / Continuous / Motion Recording Schedule** - Use the mouse to select individual time blocks for Alarm, Continuous and Motion Recording. Selected blocks are displayed in Blue.



Camera Setup

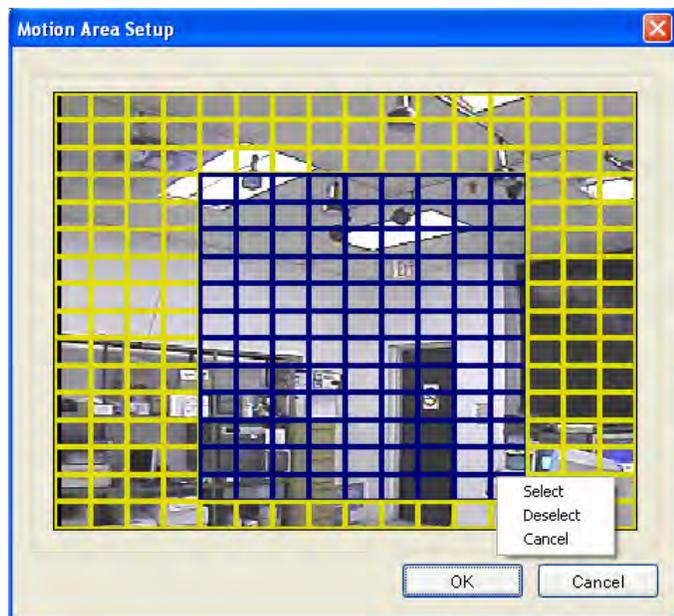
Settings for Individual Camera recording:

- **Camera Group** - Select Cameras 1~4 or 5~8 for setup.
- **Covert / Title** - Sets the Covert status and Name for each camera. Refer to the System Instruction Manual for more details on the Covert Camera Setting.
- **Color Setup** - Sets the Brightness, Contrast, Tint and Color for each camera.
- **PTZ Setup** - Set the Address, PTZ Protocol and Baud rate for each camera. Click the Properties button to enter additional setup information. Refer to the specific PTZ Camera Manual for details on configuration.



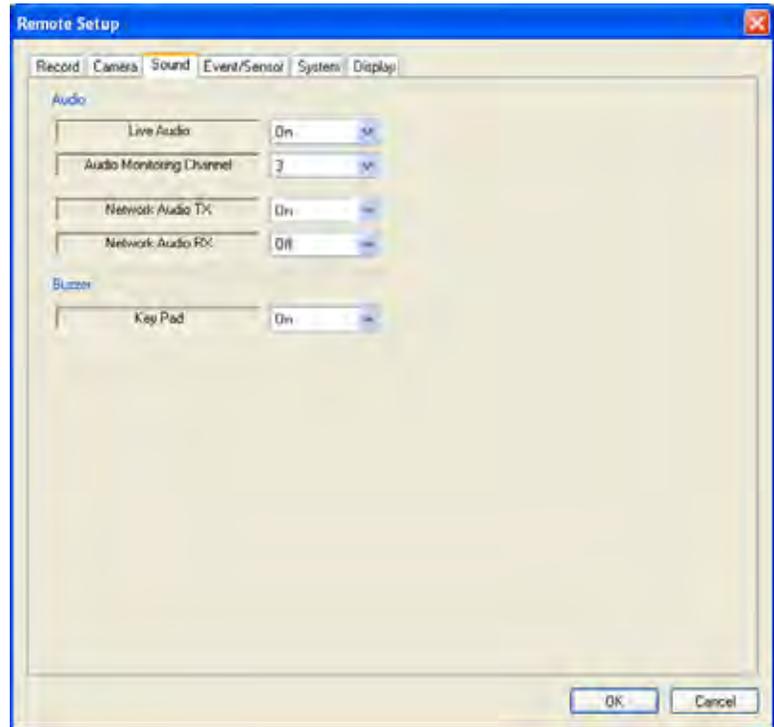
- **Motion Area** - Click the "Camera" Button to access the Motion Setup Menu. Select an area by click and dragging with the mouse. The Selection menu will automatically appear to Select/Deselect/Cancel the Motion Setup.

An area selected will have Yellow Squares, and a deselected area will have white squares.



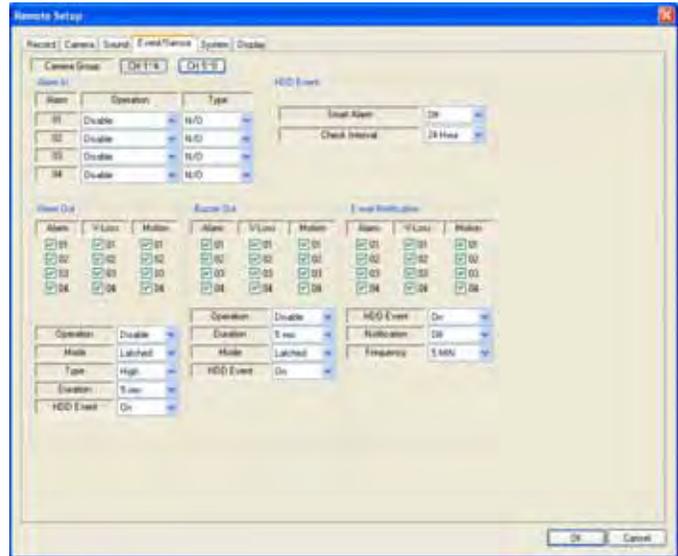
Sound Setup

- **Live Audio** - Sets Live Audio to ON/OFF.
- **Audio monitoring channel** - Sets the channel for Live Audio Monitoring (1~4 Only).
- **Network Audio TX** - Sets the Network Audio transmission to ON/OFF.
- **Network Audio RX** - Sets the Network Audio Receive to ON/OFF.
- **Buzzer Setup** - Turns the alarm buzzer OFF when a button is pressed on the System Front Panel Keypad.



Event/Sensor Setup

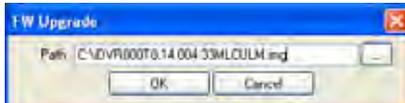
- Alarm Input** - Sets the Alarm Input Operation to Enabled or Disabled, and sets the Type to Normally Open or Normally Closed. Refer to the System Manual for details on configuration of External Alarm devices.
- HDD Event** - Turns the Alarm On/Off when a problem is detected with the System Hard Drive.
- Alarm Out** - Sets the Alarm out for a secondary Alarm Device. Refer to the System Manual for details on configuration of External Alarm devices.
 - Operation: Set the Relay Connect with Alarm Sensor to ON/OFF.
 - Mode: Set the Reacted Relay to Latched or Transparent Mode.
 - Type: Set to Low (Normally Closed) or High (Normally Open)
 - Duration: Setup Reacted Relay Time. (5sec~5min or Until key-in)
 - HDD Event: Alarm On/Off when HDD has the problem.
- Buzzer Out** - Sets the audible buzzer alert when an event is detected.
 - Buzzer: On/Off
 - Duration: Sets the Buzzer time (5sec~5min or Until key-in).
 - Mode: Setup Reacted Relay as Latched/Transparent Mode.
 - HDD Event: Alarm On/Off when HDD has the problem.
- E-mail Notification** - Generates an email notification when an Event is detected. Refer to the System Manual for details on configuration of Email Notification.
 - HDD Event: Sends an email when a problem with the System drive is detected.
 - Notification: Turn the email send ON or OFF.
 - Frequency: Set the amount of time to wait until resending an email.



System Setup

System Info - Displays the System Information including the Software and Hardware versions, Video Signal type, IP and MAC addresses, and Disk Space usage.

- **FW Upgrade:** Select the FW Upgrade button to remotely upgrade the System firmware.



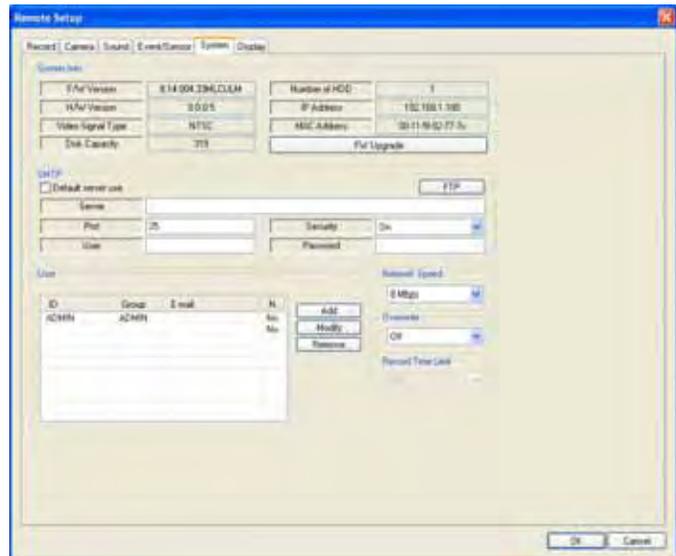
Navigate to the location of the saved *.img Firmware File (download the most recent firmware from <http://www.lorexcctv.com>). Follow the prompts to install the Firmware on the Remote System.



Once the remote system firmware has been upgraded, the system will reboot, and you will need to reconnect with the Remote Client Software.

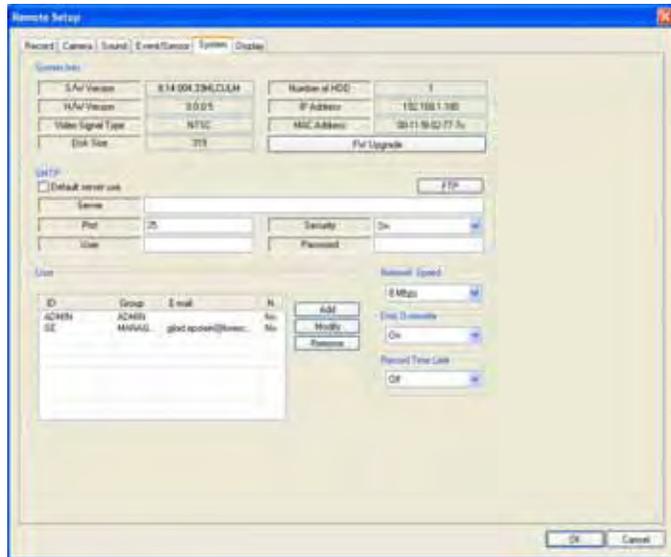
SMTP - Setup the mail server and user's E-mail (sends an email notification via email when an event occurs):

- **Default Mail Server:** If the box is checked, you have selected to use the Lorex Mail Server. **YOU WILL BE REQUIRED** to set up your system on the Lorex web based DDNS at <http://www.lorexddns.net> to use the default mail server. Uncheck to use your own mail settings.



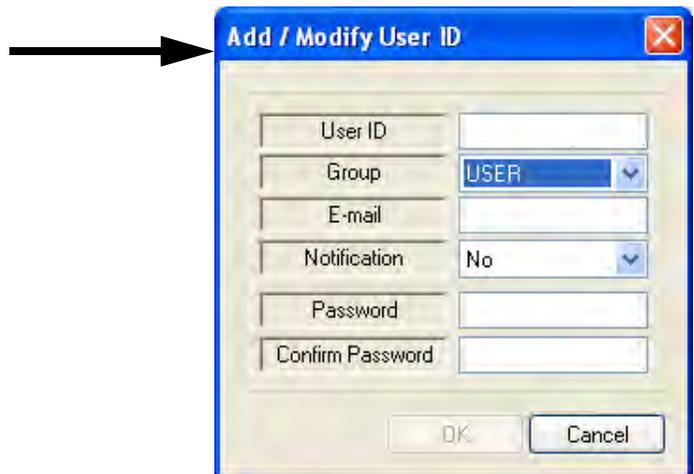
SMTP SECTION - Setup the mail server and user's E-mail (for email send on Event notification):

- **Server:** Your email settings (from your Internet Provider) for sending Email (if not using the Lorex Mail server).
- **Port:** Default port 25
- **User:** Enter the User ID used by the Internet Provider for Internet connectivity.
- **Password:** Enter the Password used by the Internet Provider for Internet connectivity.
- **Security:** Set the security to ON or OFF.
- **FTP:** Contains the settings for the FTP Backup.



Users - Setup/Modify System Users by pressing the "Add" or "Modify" buttons.

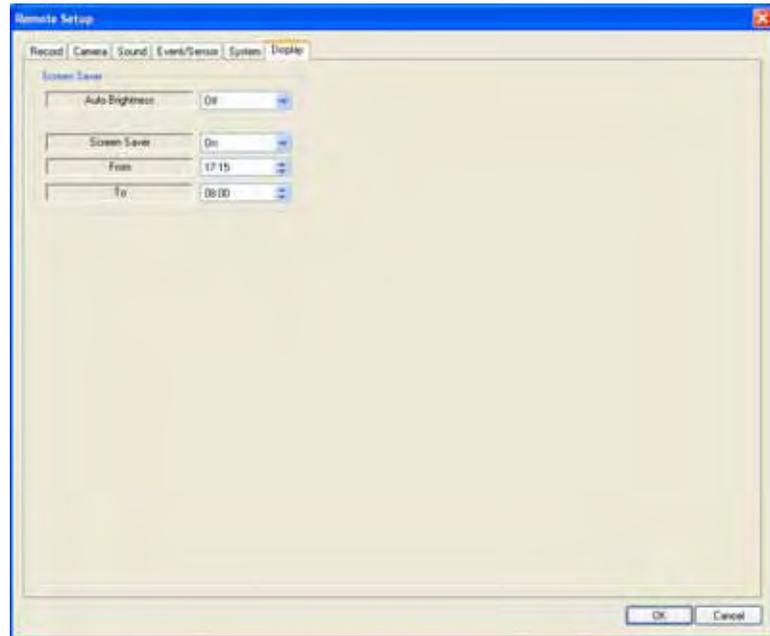
- **Network Speed** - Set the network connection speed.
- **Disk Overwrite** - Sets the System HDD Overwrite On/Off.
- **Record Time Limit** - Select the time (Off, 12 hours, 1day, 2day, 3day, 1weeks or 1month). This option is only available if disk overwrite is set to ON.



Display Setup (Screensaver)

- **Auto Brightness** - select the time (10 min., 20min, 30min, 40min, 50min or 1 hour). If a time is set, the Remote System screen will go dark after the set time interval.
- **Screensaver*** - Turns the Screen Saver to On or OFF. The screensaver will blank the screen during the specified times if set to ON:
 - **From:** Turns the Screensaver ON (start time).
 - **To:** Turns the Screensaver OFF (end time).

* If selecting the OFF setting, "the screen saver (Main Display Off) will be disabled.



Lorex Player

The Backup Player will playback data previously saved to the PC Hard Drive, or files backed up from the system to a USB Memory Stick, Optical Drive (CD-RW / DVD-RW) or to FTP.



The Backup Player can be launched from either the Start Menu or Desktop Shortcut

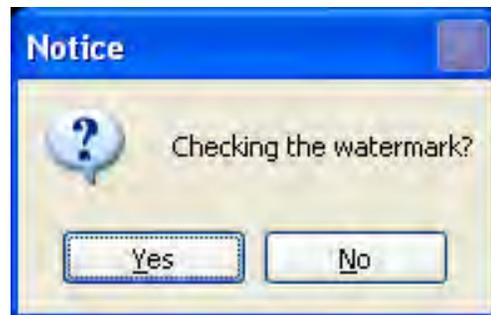


To open a file, select the FOLDER ICON in the lower left of the screen. Navigate to the save location, and select the video file for playback.

Video File Watermarking

The archived video files have a file protection (referred to as Watermarking). When the Player loads a file, it checks the file to confirm that no editing or changes have been made. If changes are detected, a warning message is displayed indicating that the file has been altered.

When the file is loaded, a prompt appears to allow the program to check the Watermark in the file. Choose YES to check the file, or NO to skip the watermark checking.



To cancel the Watermark check, click the STOP button.



Once the file has been checked, the Player will load the file for playback.

Video Playback Image (only one camera can be displayed at a time)

Playback Controls (See previous Search options for details).

Select the Date and Time for the video playback

Displays the currently displayed file name and Total playback time for the video recording.



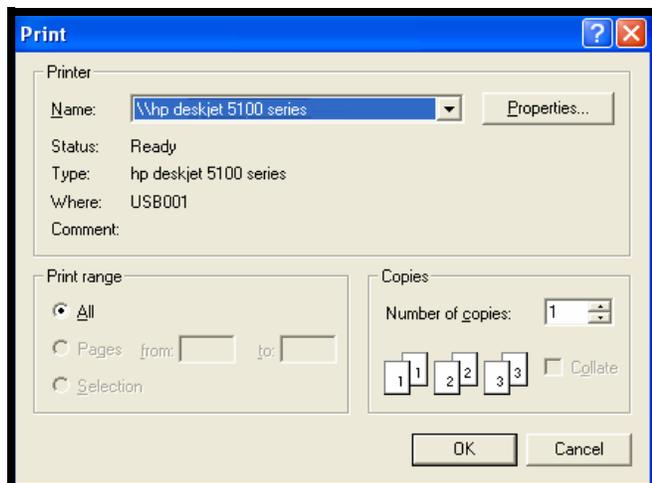
Image Save Function

- Click the 'Save Image' Icon during Video Playback.
- Enter a file name, select a File Type (JPG or BMP), and Location. Press the SAVE Button.
- The current image will be saved.



Print Function

Prints the currently displayed image. Select the Printer, and press OK.



Log Viewer

Search Range - Set the Start Date and Time, and End Date and Time.

Search Button - Press to perform a search based on Criteria

Search Condition - Select the Search criteria (Alarm, Motion, Continuous or System).

OK Button

Move to Previous or Next Page, or use the dropdown to select a specific page number.

Return to Timeline View (Search Mode).

Logs - Displays logs (based on Search Range and Search Conditions). Displays the Log Number, Channel, Date and Description.

No	CH	Date/Time	Description
1		2006/10/03 13:47:34	Remote Log Off
2		2006/10/03 13:47:35	Remote Log On
3		2006/10/03 14:04:48	Remote Log Off
4		2006/10/03 14:05:03	Remote Log On

Event Viewer

Displays a list of all Events.

- **NO** - Event Number
- **DVR** - Displays the System where the event originated from.
- **CH** - Displays the channel number where the event occurred (if applicable. Some event types will not be display a Channel number)
- **Date and Time** - The date and time that the event occurred
- **Description** - Displays a description of the Event type.

No	DVR	CH	Date/Time	Description
1	shin-0	4	2006/10/03 14:15:00	Recording is continued #4(This is not dis
2	shin-0	3	2006/10/03 14:15:00	Recording is continued #3(This is not dis
3	shin-0	1	2006/10/03 14:15:00	Recording is continued #1(This is not dis

Archived Files

Data can be archived in several ways:

- Directly from the system using a Memory Stick or Removable Media (CD-RW / DVD-RW).
- From the System to a remote location via FTP.
- Using the Lorex Client software application.

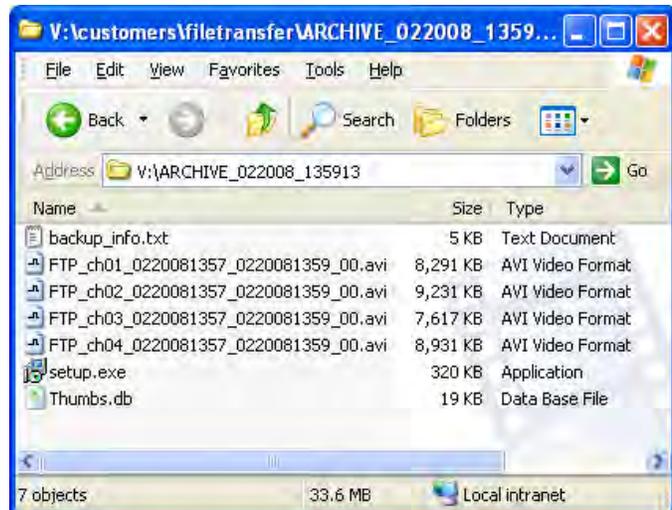
Once the data has been archived, a directory will be created containing the following:

- **AVI Files:** An AVI Format video file will be created for each channel selected for backup. The file name will include the information about the file including Backup Type, Channel Number, Date (Month, Day, Year) and Time (Hour, Minute, Second).

In the example shown below, the file named:

“FTP_ch01_0220081357_0220081359_00.avi”

indicates that the file was archived using FTP, for Channel 1, on the 22nd of March, 2008 at 1:59pm.



- **SETUP.EXE File:** The Setup.exe file contains the codecs needed to playback the AVI video file. If the archived data is to be played back on a PC that does not have the Lorex Client software or Lorex Player software installed, the Setup.exe file included in the archive can be run to install the Codecs.

Once the Codecs are installed, the video data can be played back on another player program (i.e. Windows Media Player, WinAmp, etc.).

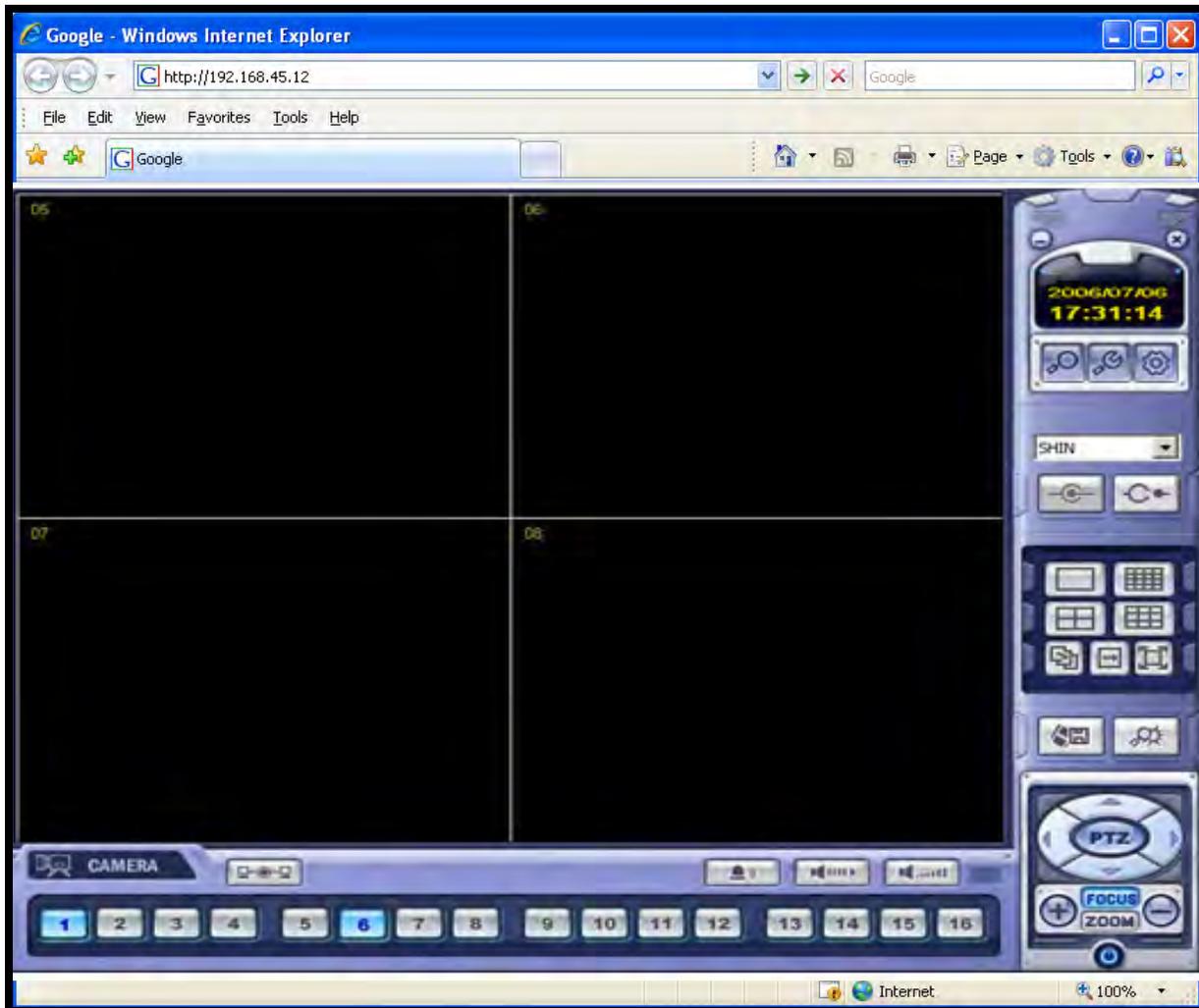


- **TXT Log File:** The txt log file is written to the folder, and includes details about the backup process. Data included in the backup log consists of:
 - Information about the System (Firmware version, backup archiving type)
 - Backup Requested Data (Selected Start and End times, channels for video and audio backup)
 - Backup Results (A log of each file created during the backup process including start and end time, and file size).
 - File Total (Displays the total number of files that were created in the backup archive directory).

Web Client

Once the System is configured, a connection can be made using Internet Explorer (this is the only supported Web Browser).

- Enter the IP Address or DDNS Address of the System in the Address Bar of Internet Explorer.
- A prompt will appear for Active-X - choose to install the controls.
- The Lorex Client software will install remotely, and have the same functionality as the full installation (from CD).



NOTE: Many factors impact the performance of your web browser such as security settings, popup blockers, firewall settings, routers, and other network conditions that are specific to the end user. Lorex recommends using the included Lorex Client software.

Multiple Connection Setup

The “Site” can be used to connect to several remote systems at the same time (up to 16 systems). These systems can be at the same location, or can be at Multiple locations. Some examples include:

- Adding multiple systems at the same location. For example, you may have an office that has more than one system at the location - use the client to connect to the system located at the Front Desk and the system located in the Warehouse at the same time.
- Adding multiple systems at different locations. As an example, you may have several retail stores that are physically located in different areas of they city - use the client to set up a connection for each store using the stores’ specific DDNS or External IP address information to connect.

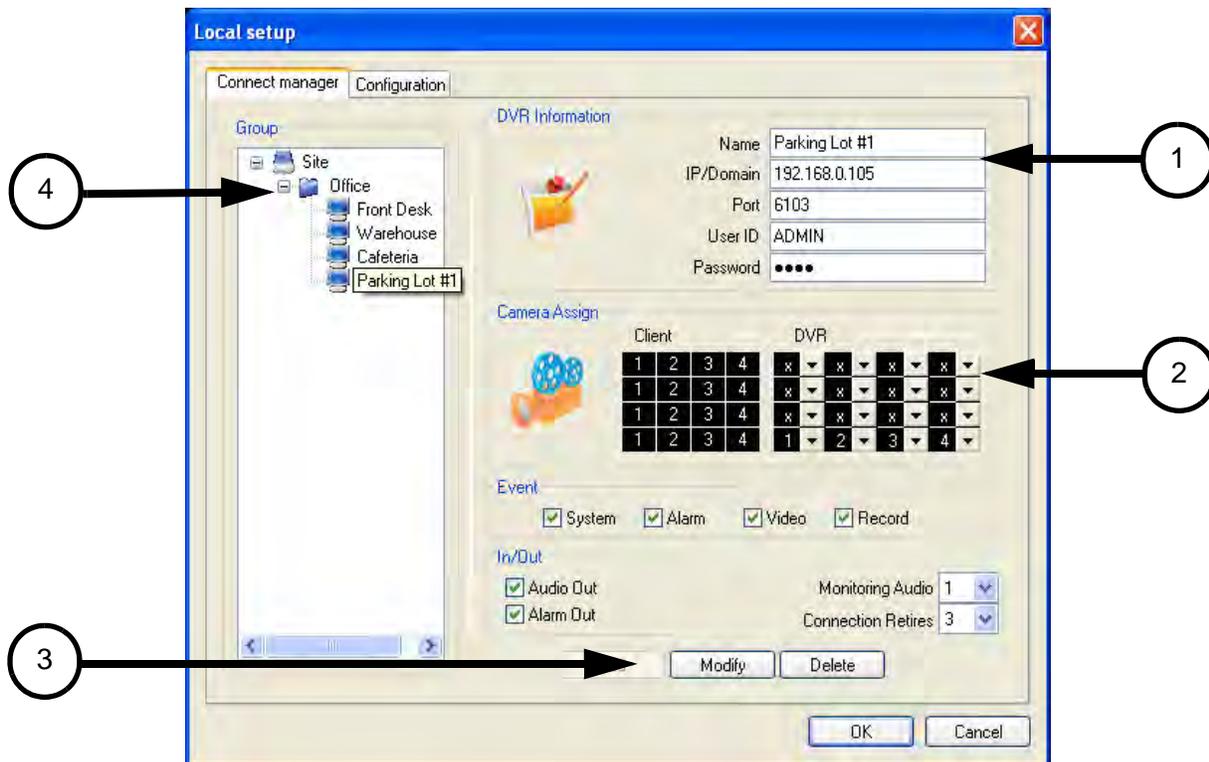
Adding a Single Site with Multiple Systems

To Configure Multiple Systems at one “Site”, add a site as shown on the previous page. You can add up to 4 systems to the site by:

1. Enter the information in the “DVR INFORMATION” section
2. Adding cameras to the drop down DVR Menu

NOTE: You cannot overlap the camera locations. For example, if you assigned the first System to have cameras 1~4 appear in the top row, you cannot assign cameras 1~4 from the second system to the top row - use the second row down instead.

3. Click the ‘ADD’ button at the bottom to add the site.
4. Click on the Site Name to add another System to that location.

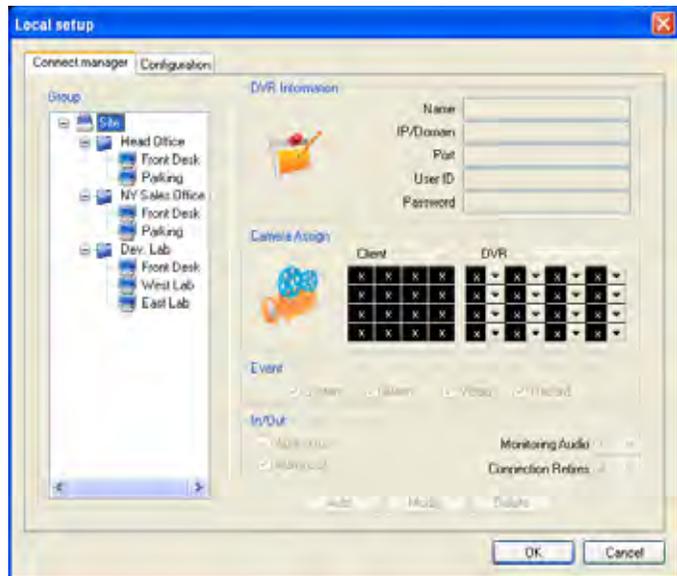


Adding Multiple Sites with Multiple Systems

You can add Multiple Sites with Multiple Systems to the Lorex Client, however you can only connect to one “Site” at a time.

To add Multiple Sites with Multiple Systems:

1. Add a Site by right clicking on the ‘Site’ link on the right side menu.
2. Add a System to the site by entering the System Information, including
 - Entering a Name
 - Entering a Domain
 - Entering the Port, User ID and Password
 - Adding Cameras to the DVR Dropdown and clicking on the ADD button.



Repeat to add more Systems to the selected site, by clicking on the Site Name and completing the fields.

3. Add a second site by right clicking on the ‘Site’ link on the right side menu, and repeat the steps.

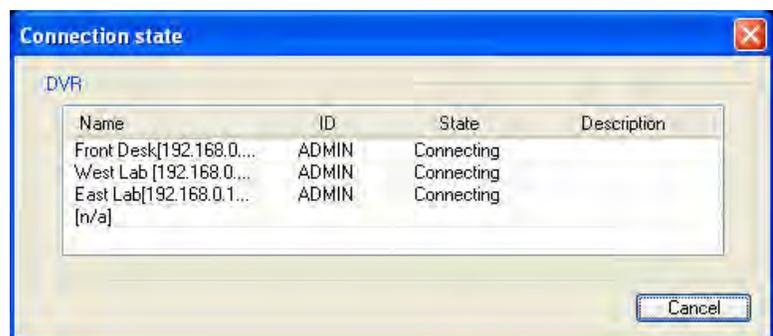
Selecting a Site for Connection

To select a site, click on the drop down menu on the right side of the client. Select a Site from the list, and the connection window will appear.



The Connection Status window displays all Systems configured for the site, and will attempt to connect to each site separately.

Once the connections have been made, the systems will be displayed in the Split screen view.



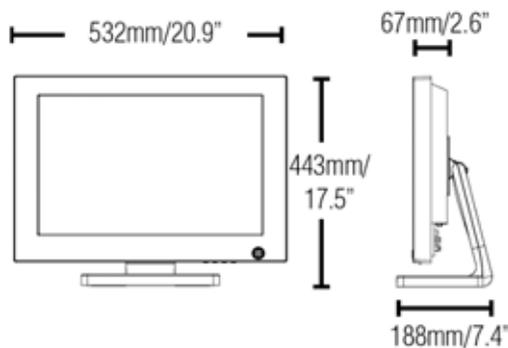
NOTE: To connect to a new site, you must first disconnect from the existing site.

Appendix A: System Specifications

Monitor

Description	Specification
LCD	22" widescreen
LCD resolution	1680x1050
Monitor display	Real-time 240 FPS (NTSC); 200 FPS (PAL)
Image size	3-5 Kbyte (352x240, 352x288) (NTSC, PAL) 5-10 Kbyte (704x240, 704x288) (NTSC, PAL) 6-16 Kbyte (704x480, 705x576) (NTSC, PAL)
Video input	16 x BNC
Video output	Programmable Spot-Out (BNC)
Audio input	4 x line-in, RCA
Audio output	1 z line-out, RCA
VGA input	included
Component input	Y Pb Pr
Supply voltage	100VAC-240VAC, 12VDC, 6.67A, 60/50Hz
Power consumption	Approx. 65W
Temperature range	23 ⁰ ~122 ⁰ F / -5 ⁰ ~50 ⁰ C
Weight	19.3 lbs / 8.7 kg
Dimensions	21" X 14.4" X 2.7" / 532mm X 365mm X 67mm without stand) 21" X 16.2" X 7.4" / 532mm X 433mm X 188mm (with stand)

Dimensions



As our products are subject to continuous improvement, Lorex 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 A: System Specifications (cont'd.)

DVR

Description	Specification
Hard disk capacity	SATA interface, maximum 750GB, 100% duty cycle
Secondary storage	USB default (USB flash drive, external USB HDD), USB optical drive (CD-RW/DVD-RW)
Backup file format	AVI, JPG, BMP
Compression	MPEG-4
Recording speed	240/200 (NTSC/PAL) @ 352x240 120/100 (NTSC/PAL) @ 704x240 60/50 (NTSC/PAL) @ 704x480
Recording schedule	Hourly, Daily, Weekly—adjustable per channel
Pre/Post alarm recording	5 seconds (pre); 3 minutes (post)—programmable per camera
Event/Log search	Up to 100,000 for user log in/out, configuration changes, remote access, connects/disconnects
Playback	Single, Quad, or 8-channel simultaneous
Alarm input	8 x TTL, programmable as NC/NO
Alarm output	1 x Relay with NO/NC contact; 30VDC/1A, 125VAC/0.5A resistive
Activity detection	16x16 grid; sensitivity levels: 10
PTZ control	RS-485 interface
Remote functions	Live view, Live recording, Search, Setup, Backup
Network speed control	8 levels (56KB~8MB)/sec.
Network protocol	TCP/IP, DDNS, Web
Network interface	10/100 Base-TX, RJ-45

Software

- Remote monitoring software supporting multiple sites with full remote control over the Internet or Local Area Network (LAN)
- Internet Remote Functions: Live View, Live Recording, Search, Set-up, Backup
- Firmware Upgrade over network
- Email alerts with a web browser link
- Microsoft Windows Vista™ Compatible Software (included)

Appendix B: Setting up Remote Viewing

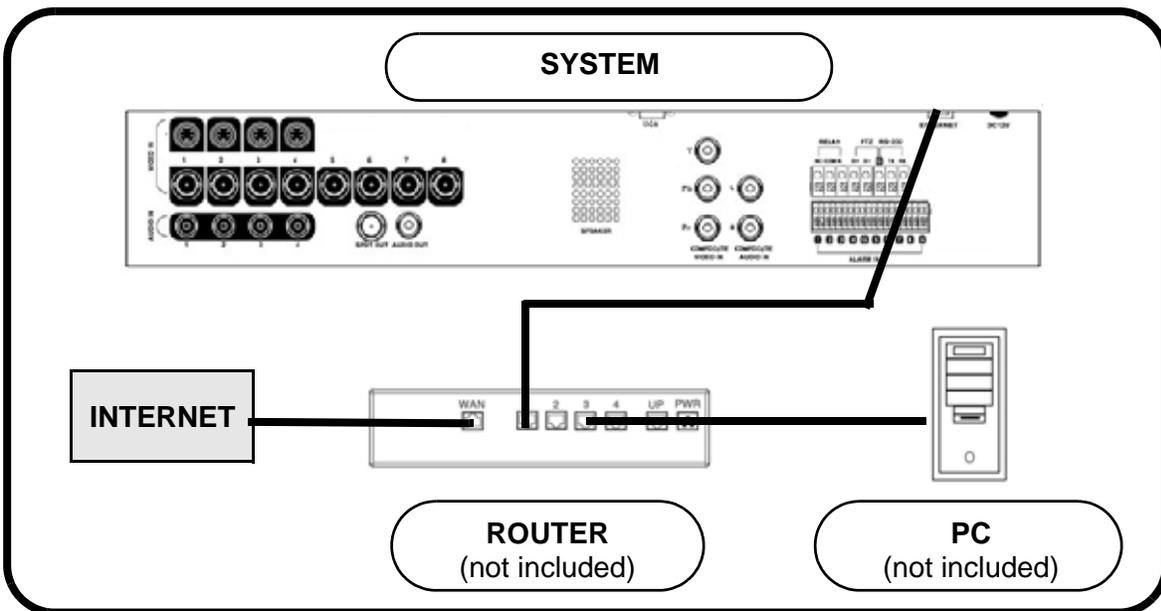
Setting up the Remote Viewing Feature requires several steps. Networking skills are required to correctly configure the remote viewing functions.

What do you need?

- The LCD/DVR System.
- A PC with the installed with the Lorex Client software (refer to the Software Guide for installation instructions)
- A Router (not provided with the system) and High Speed Cable or DSL Internet Connectivity (for remote viewing outside your network)

Network Setup / Remote Access Overview

The System can be remotely controlled using your existing network and the Lorex Client software or Internet Explorer.



1. Connect the system to the router using the supplied Ethernet cable. Power on the system. The system must be connected to the router prior to powering on the system. This allows the system to communicate on your network
2. Find the IP address of your System through the Menu System on the unit.
3. Enable **PORT FORWARDING** on your Router. Refer to the included Router Guide and Basics of Remote Video Access Guide for further assistance with your specific network setup and hardware.
4. Set up a web account at <http://lorexddns.net>.
5. Setup the System DDNS.

Configure the software, using the information gathered on the following pages.

Network Checklist

The following checklist is provided to assist you in confirming that all steps have been successfully performed during Network Setup. Use this checklist in conjunction with the steps outlined on the following pages.

1. I have the following:

• High Speed Internet

• A Router

• The Ethernet Cable provided with this system

• The System

• A PC with the Remote Access software installed

2. I have confirmed that my System is set to automatically complete my Network settings (DHCP is set to ON):

• Press the SETUP button on the Front Panel -or- Press SETUP on the Remote -or- Right Click on the screen and select the SETUP option.

• Select the System Setup option

• Select the System option

• Select the Network Menu. Confirm that the options for both DHCP and DDNS have checkmarks in the boxes.

3. 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

NOTE: Network Setup will not work if you do not have a router

4. I have found my System Information by either Pressing the ENTER button on the Front Panel -or- Pressing the INFO button on the Remote Control:

• My IP Address is: _____

• My MAC Address is: _____

NOTE: If your IP address is showing as **127.0.0.1**, please return to Step 1 and review all menu settings. Check to make sure that your Ethernet cable is properly connected to your Router and System.

5. I have enabled PORT FORWARDING on my Router for:

- Port 80
- Port 6100

NOTE: Each Router is different, therefore the port forwarding settings will vary by model. Please visit us on the web at <http://www.lorecctv.com/support> for assistance with several of the most common router types. If your router is not listed, please refer to the manual that came with your Router, or your Router manufacturer for assistance.

6. I have configured the DDNS for remote access to my system at <http://lorexddns.net>, and my configuration information is:

- Username: _____
- Password: _____
- Domain Name: _____

7. I have configured my System to connect to the DDNS Server by completing my Network settings:

- Press the SETUP button on the Front Panel -or- Press SETUP on the Remote -or- Right Click on the screen and select the SETUP option.
- Select the System Setup option
- Select the System option
- Select the Network Menu.
- Select the DDNS Server option, and use your information to complete the DDNS Configuration:

- DDNS Server Name: Lorex (default)
- Domain Name: Enter the name you set for the DDNS web configuration.
- User ID: Enter your user ID
- Password: Enter your password

• Click the DDNS Status button to confirm the connection details.

• A success message will appear, and the system will restart.



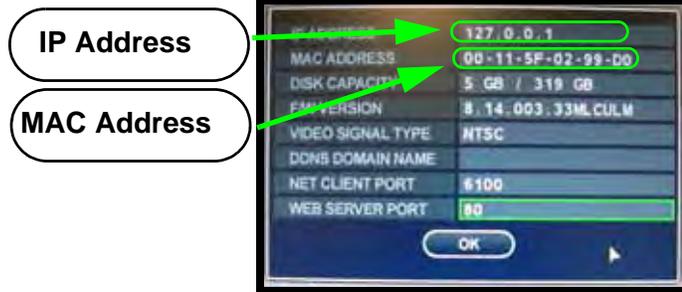
8. Configure the Remote Access Software:

- If you are connecting from within your network (i.e. The System and your PC are both inside your house), you only need to enter the IP address of the System into the software (i.e. 192.168.0.105)
- If you are connecting from outside your network (i.e. The System is at Home, and your PC is at work), use the DDNS Domain Name to configure the software).

System - IP & MAC Address

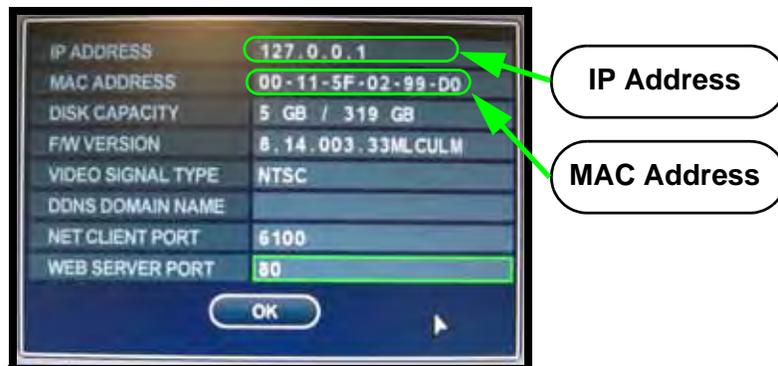
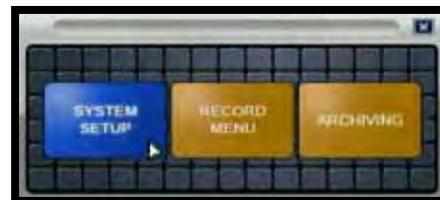
The IP & MAC Addresses are necessary for DDNS Setup (for remote access to the System).

To Locate the System information, Press the ENTER button on the Front Panel or Info on the Remote Control while viewing the Cameras. The System Info window will be displayed.



- OR -

1. Press the Menu Button on the Front Panel or Remote Control, or right click with the mouse to access the Setup Menu. Select the System Setup option and press the Enter button.
2. Navigate to the System Menu option. Press the Enter button to access the System Menu.
3. Navigate to the System Management menu, and press the Enter Button to access the settings.
4. Select the System Information option, and press the Enter Button to display the System Settings.



NOTE: Your IP address should look similar to 192.168.0.105, 10.0.0.105, etc. If your IP address is showing as **127.0.0.1**, please review all menu settings, and check to make sure that your Ethernet cable is properly connected to your Router and System.

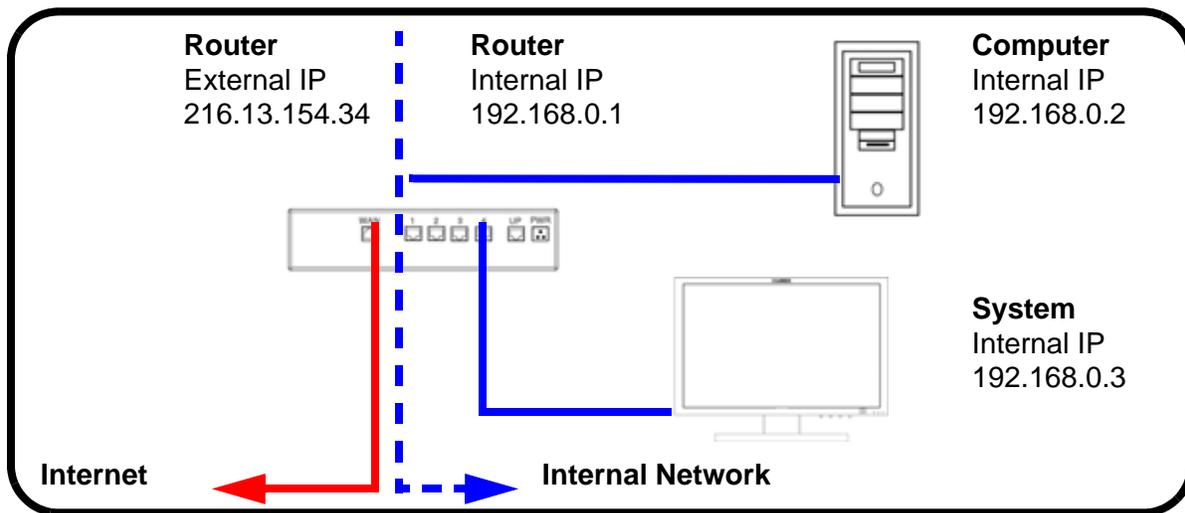
Network - Router Port Forwarding

You will need to enable port forwarding on your Router to allow for external communications with your System for ports:

- **TCP/IP PORT 6100**
- **WEB PORT 80**

Computers, Systems, 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



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 216.13.154.34:6100 to System Internal IP 192.168.0.3:6100**).

The instructions found online in the [Router Configuration Guide](#) will assist you in the port forwarding configurations for a selection of different router models.

Visit our [Consumer Guides Support](http://www.lorexcctv.com/support) website at <http://www.lorexcctv.com/support> for details

Web - Finding Your External IP Address

You will need to have your External IP address to set up your **DDNS** account. One of the fastest ways to find this information is to use a 3rd Party website such as <http://www.showmyip.com>

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

Setting Up DDNS Service

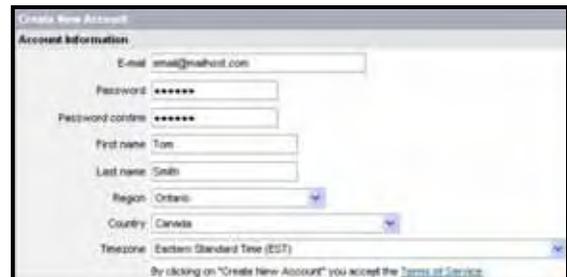
Lorex offers a free DDNS service for use with your DVR. A DDNS account allows you to set up a web site address that points back to your Local Network. The following outlines how to set up your free Lorex DDNS account.

To setup your free Lorex DDNS account:

1. In your browser, go to <http://lorexddns.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:** Select your product model from the Product License drop down menu (e.g. L800)
- **<Product Code> - <MAC Address>:** The physical address of your product on your network. Do not include hyphens/dashes.
- **URL Request:** Choose a URL for your DDNS connection (i.e. your name, your company or business name, or anything of your choice.)

A screenshot of the 'Account Information' form on the Lorex DDNS website. The form includes fields for E-mail (smad@mailhost.com), Password (masked with asterisks), Password confirm (masked with asterisks), First name (Tom), Last name (Smith), Region (Ontario), Country (Canada), and Timezone (Eastern Standard Time (EST)). A note at the bottom states: 'By clicking on "Create New Account" you accept the Terms of Service.'

4. Once the information has been entered, click **Create New Account**.
5. Your Account information will be sent to you at the email Address you used in Step 2.

A screenshot of the 'System Information' form on the Lorex DDNS website. The form includes a 'Product License' dropdown menu set to 'L22WD', a text field for 'URL Request' containing 'tomsmith', and a '.lorexddns.net' domain. A 'Create New Account' button is visible at the bottom. A small icon and the text 'What is this?' are also present.

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

Username: - - - - -

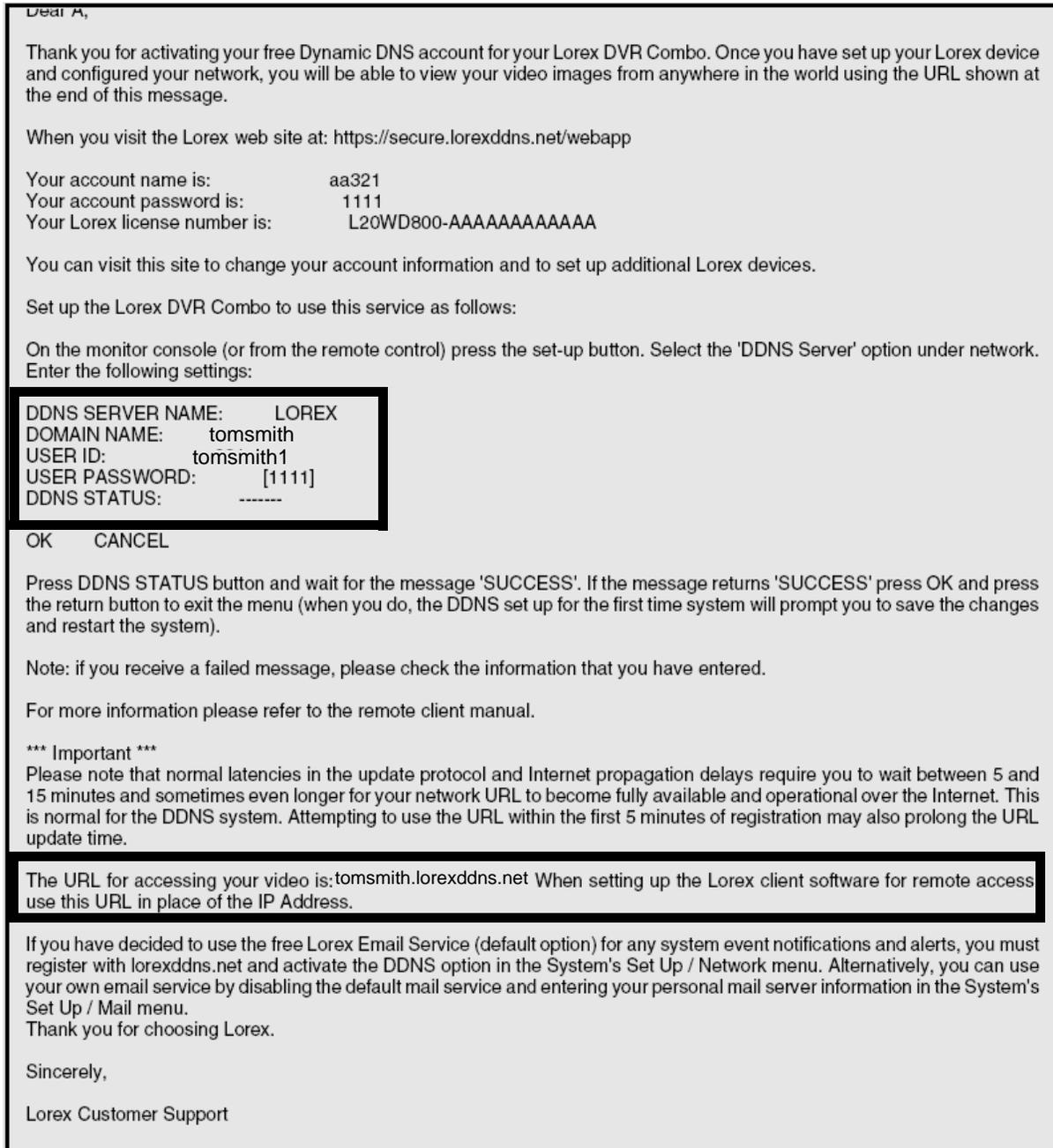
Domain name*:- - - - -

Password: - - - - -

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

There are two ways to find your DDNS information at a later date.

1. Review the Email sent to you by Lorex:



NOTE: If you entered an incorrect Email address when setting up the DDNS, you will NOT receive this email. To review the email, you must log into the DDNS Website.

In order to receive email alerts, you must register your system with the Lorex DDNS, or alternatively change your default mail settings (see Appendix D).

2. Log in to the Lorex DDNS website at <http://lorexddns.net> and enter your username and password.

Click Action in Device Summary to display a copy of the Confirmation email.

Name	URL/IP	Type	Select	Action
Video Device 1	cats.lorexddns.net	L20WD800	<input type="checkbox"/>	

Thank you for activating your free Dynamic DNS account for your Lorex DVR Combo. Once you have set up your Lorex device and configured your network, you will be able to view your video images from anywhere in the world using the URL shown at the end of this message.

When you visit the Lorex web site at: <https://secure.lorexddns.net/webapp>

Your account name is: aa321
 Your account password is: 1111
 Your Lorex license number is: L20WD800-AAAAAAAAAAAAA

System - DDNS SETUP

Once the DDNS settings have been configured online, the information must be entered on the System to allow for remote connection via the Lorex Client 4.0 Software (or through Internet Explorer):

1. Access the Main Menu Setup screens, and navigate to the **SYSTEM** option. Press the ENTER button to access the setup.

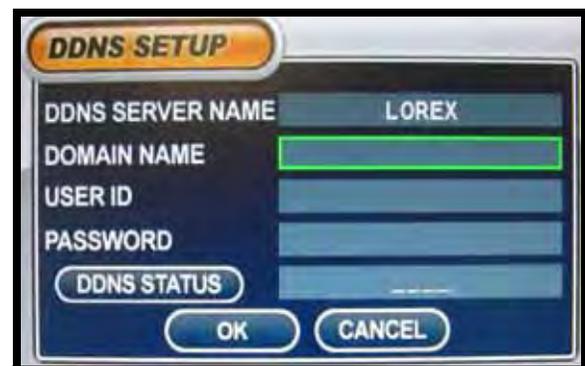


2. Navigate to the **NETWORK** option. Press the Enter button to access the Network settings. Select the DDNS Server option, and press the ENTER button to enter the **DDNS SETUP**.



3. Enter the information received in email (including the password). Press the DDNS Status first - wait for the SUCCESS MESSAGE (as long as the information is correct).

Select OK to save the settings.



The System will restart to activate the new configuration.

NOTE: Once all Network settings are configured, the System can be accessed using the Lorex Client 4.0 Software.

Appendix C: Using the Auto Email Feature

Setting up Email

This System has the ability to automatically send email when an event is detected. To configure the automatic sending of Emails, the following Menu option setup is required:

- System Menu - Mail
- System Menu - User Management
- Event/Sensor - Email Notification

System Menu - Mail

Navigate to the System Menu, and select the Mail Option.

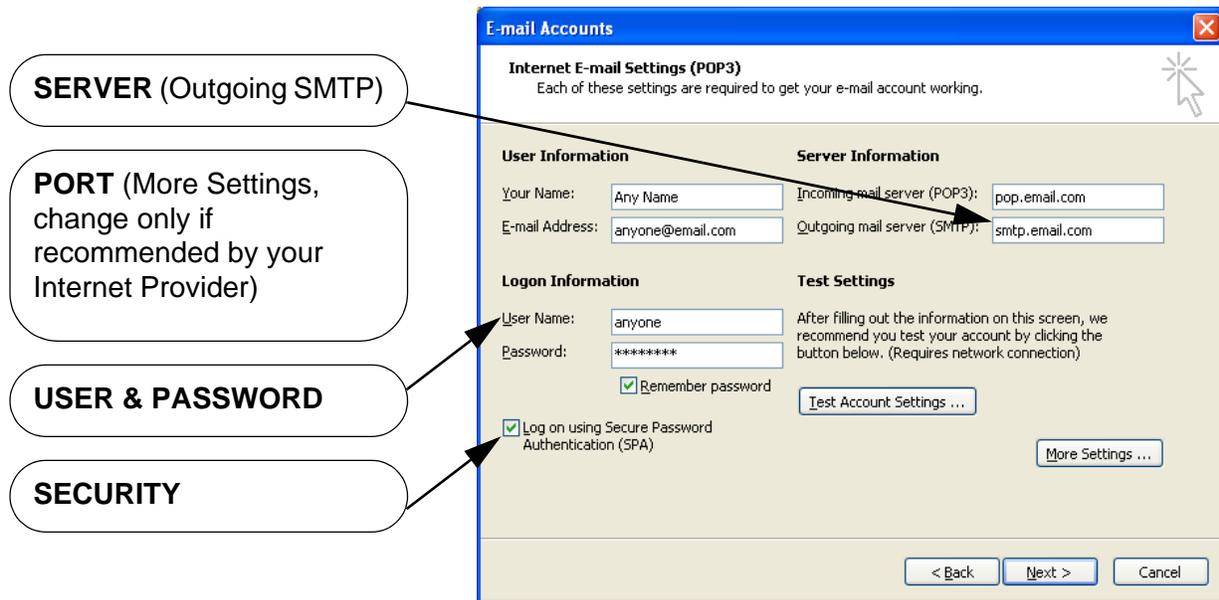
NOTE: All settings that are completed in the Mail section are for OUTGOING MAIL (i.e. The same settings that you use to send mail through Outlook or any other mail program. There are two ways to configure these settings:

- Configuration using the Lorex Mail Server. Make sure the box is checked, and you will not need to enter any additional information, however **YOU WILL BE REQUIRED** to set up your system on the Lorex web based DDNS at <http://lorexddns.net> to use the default mail server -OR-
- Configuration using YOUR mail server settings. The Settings needed for this configuration can be found by contacting your Internet Provider, and asking for your 'Outgoing Mail Settings'.
 - **Default Server** - Uncheck to use YOUR mail settings.
 - **SMTP Server** - Enter the Email server information for your ISP.
 - **Port** - Default port of 25
 - **Security** - Sets the Mail Security ON/OFF (based on the requirements of the mail provider).
 - **User** - Enter the User Name.
 - **Password** - Enter the User Password



NOTE: The Virtual Keyboard appears when entering the Mail Setup information.

This is an example of the same type of required settings (formatted for Microsoft Outlook).



NOTE: This example is not required for the System to function correctly. This is used to illustrate the required settings (using another program).

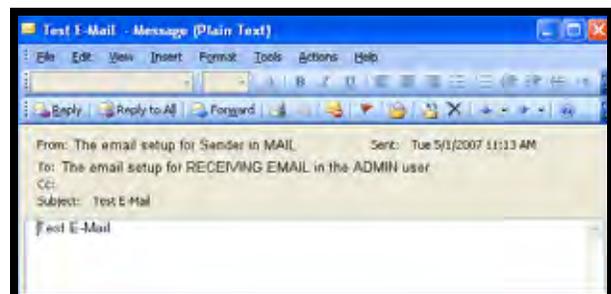
Testing the Mail Setup

Press the TEST E-MAIL Button on the System. A window will appear indicating a Success or Fail for the connection.



Test Results in Email

You will receive the following in an Email message upon successful completion of the Testing portion.



System Menu - Mail

Navigate to the System Menu, and select the Mail Option.



New users can be added to the System through the User Management screen, and existing users can be edited.

The important features in the User Setup are the E-Mail address and E-Mail Notification:

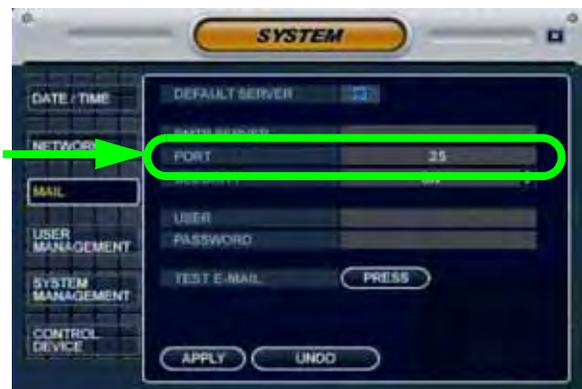
- Set the E-Mail to the desired Receiving Address.
- Set the E-Mail Notification to ON. This must be set ON for the user to receive mail.



Troubleshooting the Email Feature

If you are having problems sending emails from the System, you may need to use a different port than specified in the Email Setup menu.

If this port is changed, then the new port will need to be forwarded on your Network Router. Please refer to the Port Forwarding section of the manual for details, or contact Technical Support.



Event / Sensor - E-Mail Notification

Navigate to the System Menu, and select the Mail Option.



- **NOTIFICATION** - Notification must be turned on for Automatic E-mail alerts to be sent.
- **HDD EVENT** - Emails a notification to all active accounts when problems are detected with the Hard Drive.
- **ALARM / VIDEO LOSS / MOTION** - Select the type of event for which you wish to trigger email notification: Alarm, Video Loss or Motion Detection (for each channel).
- **FREQUENCY** - Set the frequency to receive mails for the duration of the event.

NOTE: The Notification Email will only alert you to the fact that an event has occurred. No video or still footage will be sent.

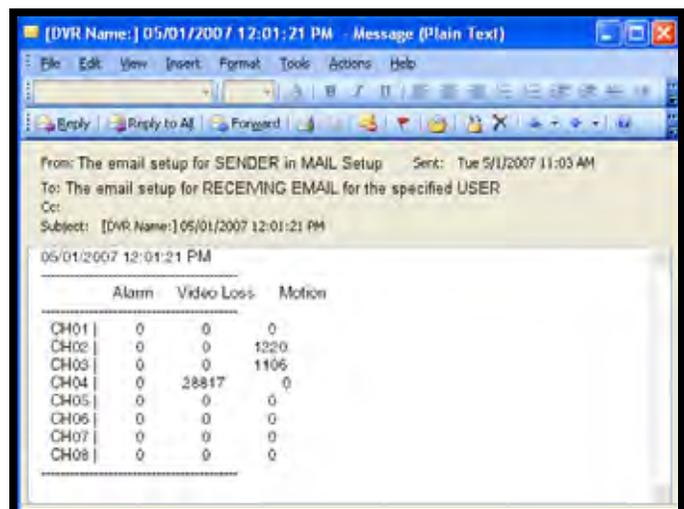
Reading Received Emails

When a specified event occurs on the system, the following is received in Email.

The E-Mail message indicates:

- The Date and Time that the Event occurred
- The Event Type.
- The Channel where the event occurred.

NOTE: The numbers in the email refer to internal system information, and are not indicative of any specific details.



Appendix D: Recommended Tips for System Setup

There are several tips outlined below that will assist you in setting up your system:

Connecting and Mounting Cameras:

1. Connect the DIN Extension Cable to an open channel port on the back of the System. Make sure that the ARROW on the cable is pointing up. This will align the pins on the cable correctly with the port on the stem, preventing the pins from becoming bent and the cable from becoming inoperable.
2. Connect one of the provided Cameras to the DIN Extension cable. Confirm that the arrows on the DIN Camera Cable and the DIN Extension cable are pointed together when connecting the cable. If the pins in the DIN Cable are bent, the Camera will NOT function.
3. Mount the camera to the desired surface (ceiling, wall, shelf, etc.). Connecting the cables BEFORE permanently mounting the stand will help prevent issues with cable length (camera is mounted too far from the system and cannot be connected).
4. Aim the camera at the desired location. Remember to **REMOVE THE PROTECTIVE FILM** from the lens of the camera by pulling on the plastic tab.



Navigating within the System Menu

- Enter the **MENU** screen by pressing the **MENU** button. Enter the password (if required), and select the **SYSTEM SETUP** option.
- The Setup Menu controls the System Settings, Recording Settings and Archive.
- Scroll through the options by pressing the **UP**, **DOWN**, **LEFT** and **RIGHT** buttons on the Front Panel or Remote Control.
- To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.
- To exit the **MAIN MENU**, press the **RETURN** button.



Navigating within the System Menu (cont.)

Menu Navigation Controls

This System has been designed to use the Mouse or Remote Control as the primary modes of navigation and configuration for the system. The Front Panel buttons can also be used to access the menus and configure the system.



- Navigation Controls - Move Up/Down/Left/Right.
- Enter Button - Press this button to select and change the values in a menu option.

Virtual Keyboard Control

The Virtual Keyboard control becomes available when keyboard input is needed for entering information such as Names, Network Information, etc.

- Includes a~z, A~Z, 0~9 and Symbols. @#\$%^&*()
- Navigate using the arrow keys on the Front Panel or Remote Control, or by clicking with the Mouse.
- Select the ENTER button once the setup is completed.



Click to View Uppercase and Symbols

Active Option Indicator

Orange Highlight - Indicates that the option is in active editing mode.

Green Highlight - Indicates that the option is available for editing. Once the option is highlighted, press the ENTER key to edit the option (highlights changes to Orange).



NOTE: Once changes have been made, select the APPLY button at the bottom of the screen, and press the ENTER button on the front panel or remote control. Changes will be saved at this time - exiting the menu without applying the changes will result in the changes being lost.

Changing the Date and Time

Setting the correct date and time for your system is important. Once the date and time have been set correctly, it is highly recommended that you format your Hard Drive.

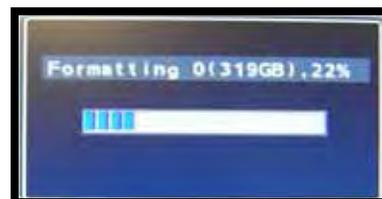
1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or Mouse Menu. Select the SYSTEM SETUP Option.
2. Select the SYSTEM menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the SYSTEM Menu.
3. Select the DATE AND TIME Menu. Change the settings by navigating with the UP/DOWN/LEFT and RIGHT arrow keys. Set the following based on your local Time (and Timezone), and set the current date for the system.



- **Date/Time** - Sets the current system Date and Time.*
- **Date Format** - Sets the Date Display format (MM-DD-YYYY, YYYY-MM-DD, etc.).
- **Time Format** - Sets the Time Display format to either 12 or 24 hour display.
- **Network Time Server Setup** - Synchronizes the system to the specified remote time server. Select the **SYNC** button to connect to the remote server and synchronize the time. (may also use a time server of the users choice).
- **Timezone Setup** - Selections for the local Time Zone (i.e. EST, CST, PST). The **DST** (Daylight Savings Time) can be set to ON/OFF.

*** NOTE: If the Date/Time is set into the past, a message will appear warning that Overlapped date(s) will be erased.**

**** MAKE SURE THAT THE DATE AND TIME ARE SET PRIOR TO RECORDING! ****

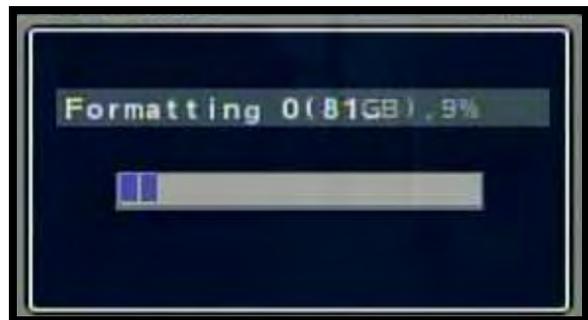


Formatting the Hard Drive

Formatting the hard drive after changing the date, and before beginning the recording of YOUR data is recommended, as the system is set to Automatically start recording when powered on (continuous recording setting).

NOTE: Formatting the Hard Drive will erase any previously recorded data. This will NOT affect your system configurations.

1. Enter MENU mode by pressing the MENU button on the front panel of the system, on the Remote Control or Mouse Menu. Select the SYSTEM SETUP Option.
2. Select the DISK MANAGEMENT menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the DISK MANAGEMENT Menu.
3. Navigate to the Format Option, and select the Start button.
 - Once OK is selected, the user will be prompted to enter the **ADMIN PASSWORD**. Once the password is accepted, all Hard Drive data will be erased.
 - A warning message will be displayed with the prompt 'All Recorded Data will be erased.'
 - Select OK to erase the data, or CANCEL to return without erasing the Hard Drive.



**Formatting Status Indicator Window:
Once the format is complete, the system will return to the Disk Manage Menu.**

Camera Setup

Each camera should be assigned a name that corresponds to its use (i.e. Dock1, BackDoor, Cash3, etc.). This name is displayed on-screen, and helps to identify the camera location easily.

1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or mouse menu. Select the SYSTEM SETUP Option.



2. Select the CAMERA menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the CAMERA Menu.



3. Select the CAMERA TITLE Menu. Change the settings by navigating with the UP/DOWN/LEFT and RIGHT arrow keys.

- **CAM #** - Indicates the Camera Number (corresponds to the DIN/BNC connection port on the back of the system).
- **Covert** - Turns the on-screen display of the Camera ON/OFF. Covert Cameras continue to record, however the camera is not displayed on-screen. This feature is commonly used in situations where the Monitor is located in a public area, and a camera should not be displayed (i.e. Located in a Cash Count room, or directed at a Cash Register).
- **Title** - Sets the name for the individual camera (0~9, A~Z) up to # characters, by using the Virtual Keyboard:
 - **Virtual Keyboard** - Appears when the Camera Title change is selected. Navigate with the arrow keys, and press ENTER to select a Number or Letter.
 - **APPLY** - Saves the Title change.
 - **PREVIOUS** - Moves to the previous camera in the list



Screen Saver Settings

The screen saver will black the screen during a defined interval.

1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or Mouse Menu. Select the SYSTEM SETUP Option.
2. Select the DISPLAY menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the DISPLAY Menu.
3. Select the SCREENSAVER Menu. Change the settings by navigating with the UP/DOWN/LEFT and RIGHT arrow keys. Set the screen saver options:

- **Auto Brightness** - Sets the length of time before the Screen brightness is turned down (up to # minutes).

NOTE: The unit continues to function, and pressing any key will turn the screen back on.

- **Main Display OFF** - Turns the Main Display Screen ON/OFF/TIMED:
 - **ON** - The Main Display is always ON
 - **OFF** - The Main Display is always OFF
- **FROM** - Used ONLY when the Main Display OFF setting is set to ON. Sets the Start Time for the monitor to go into Screen Saver mode.
- **TO** - Used ONLY when the Main Display OFF setting is set to ON. Sets the End Time for the monitor to exit from Screen Saver mode.



Backing up your System Configurations

It is recommended to back up your system configurations to a USB flash drive. Configuring your system to meet your specific needs can be time consuming - having a backup of your settings will allow you to reset your unit with your personalized settings in the event of an unwanted change.

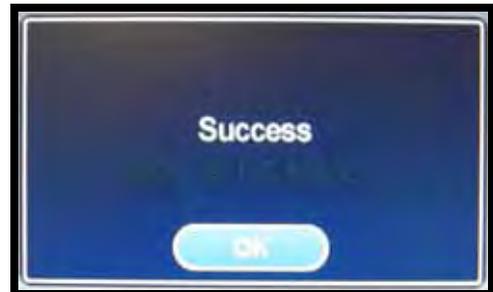
1. Enter MENU mode by pressing the MENU button on the front panel of the system, remote control or mouse menu. Select the SYSTEM SETUP Option.

2. Select the SYSTEM MANAGEMENT menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the SYSTEM MANAGEMENT Menu.



3. Navigate to the System Data option - the System settings can be saved to a USB flash drive:

- Insert the USB flash drive into the System and select the Save option to save settings:
 - A Success message indicates that the backup was completed.
 - If the device is not detected, a message will indicate that No storage device was found.
- To load your User Settings, Insert the USB flash drive into the System and select the Load option to restore settings.
- System Backup is recommended after initial setup and installation is complete.



NOTE: Make sure to store your USB flash drive in a safe place.

TIP: The USB Backup is an effective way to configure multiple systems. Using the backup file, you can make sure that all systems are configured in the same way at all locations.

Appendix E: Listen-in Audio

There are 4 available DIN camera ports, 8 available BNC camera ports and 4 BNC Audio ports on the system - how many can be used for Listen-In audio, and how many can be used to record sound?

How do I enable Listen-In Audio, and how do I set the Listen-in channel?

Listen-In Audio is the ability to listen to live audio on ONE channel at a time, between channels 1~4. To listen to live audio on a channel:

1. Enter MENU mode by pressing the MENU button on the front panel of the system (or on the Remote Control). Select the SYSTEM SETUP Option.



2. Select the SOUND menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the SOUND Menu.



3. Select the AUDIO Option. Navigate using the up and down arrows, and press the ENTER key to select the AUDIO Option:

- **Live Audio** - Turns Live System Audio (from the Audio on the terminal) to ON/OFF.
- **Audio Monitoring Channel** - Select the channel for Listen-in Audio (Channels 1~4 ONLY).



NOTE: Once the LIVE AUDIO Feature has been set to ON, the Remote Control can be used to select the Listen-In Audio Channel. Press the AUDIO button on the Remote Control to switch between Channels 1~4.

Appendix F: Playback Previously Recorded Data?

Search mode allows you to locate previously recorded video by Date and Time, or by Event Type.

- Press the Search Button on the front panel, Remote Control or mouse menu. Enter the User Name and Password (if required).
- Use the Left / Right arrows on the Front Panel or Remote Control to switch between the Search By Time and Search By Event screens.

Search By Time

Searches the system based on date and time.

- Press the Enter button to access the Calendar (on the left side of the screen)
- Navigate within the calendar using the Arrow Keys on the front panel or remote control.
- Once the date has been located, press the Enter button to accept the date, and to access the Time Search (on the right side of the screen).
- Press and Hold the arrow keys to select the Time (increments of 1 minute). Pressing the button without holding will increment 15 minutes.
- Press the Enter button to start the playback. Press the Return button to stop playback and return to the Search By Time screen.



Any days highlighted with GREEN indicate that there is recorded video data.

The Date and Time will be displayed at the bottom of the screen. A playback icon will appear indicating that the unit is in Playback mode.

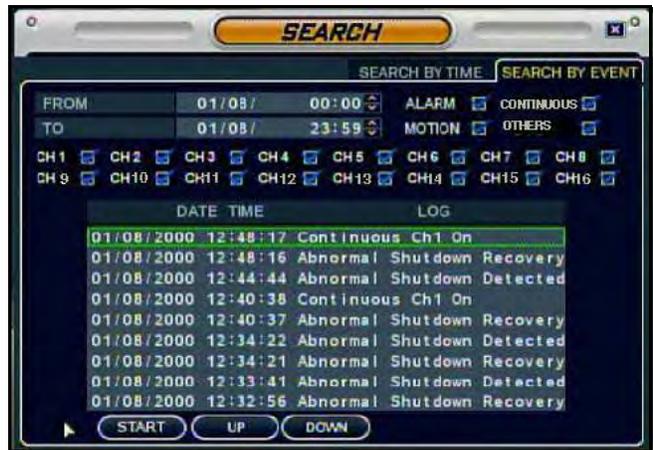


NOTE: The unit will continue to record data while in Playback Mode.

Search By Event

Searches the system based on Event Type (Alarm, Motion, Continuous or System).

- Press the right arrow button on the front panel or remote control to access the Search By Event screen.
- Select From and To dates, Events (Alarm, Continuous, Motion and Other) and Cameras
- Navigate within the options using the Arrow Keys on the front panel or remote control. Press the Enter button to select or deselect options (Note: Multiple event types can be selected).
- Navigate to the Start button at the bottom of the screen and press the Enter button. A listing of events will be displayed.



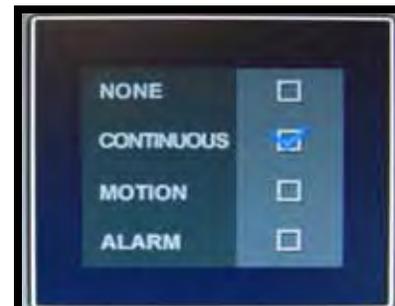
- Navigate to an event, and press the Enter button to start the playback. Press the Return button to stop the playback and return to the Event Search screen.

Appendix G: Setting Auto-Recording to OFF

The system is set to automatically start recording when powered on. You may wish to change these settings to better suit your security needs. These settings can be changed for an individual camera on one time block, or can be set for multiple cameras for multiple time blocks.

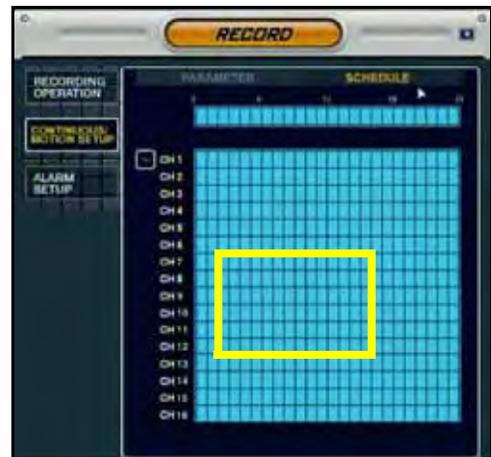
Setting An Individual Time Block

1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or mouse menu. Select the RECORD MENU Option.
2. Select the SIMPLE RECORDING MODE menu. Navigate using the up and down arrows on the front panel (or remote control). Navigate using the arrow keys
3. Select the Channel Menu (highlights the area in PINK).
4. Press the ENTER key to enter the configuration mode. One time block will be highlighted in GREEN.
5. Navigate to the desired time block and press ENTER. The selected time block will be highlighted ORANGE.
6. Press Enter once more to access the Configuration Menu. Select NONE, CONTINUOUS, MOTION or ALARM by pressing the UP and DOWN arrows. Press ENTER again to accept the change.



Setting Multiple Time Blocks

1. Enter MENU mode by pressing the MENU button on the front panel of the system, remote control or mouse menu. Select the RECORD MENU Option.
2. Select the SIMPLE RECORDING MODE menu. Navigate using the up and down arrows on the front panel (or remote control). Navigate using the arrow keys
3. Select the Channel Menu (highlights the area in PINK).
4. Press the ENTER key to enter the configuration mode. One time block will be highlighted in GREEN.
5. Navigate to the desired time block and press ENTER. The selected time block will be highlighted ORANGE. Press the UP, DOWN, LEFT and RIGHT Arrow keys to highlight multiple time blocks.
6. Press Enter once more to access the Configuration Menu. Select NONE, CONTINUOUS, MOTION or ALARM by pressing the UP and DOWN arrows. Press ENTER again to accept the change.

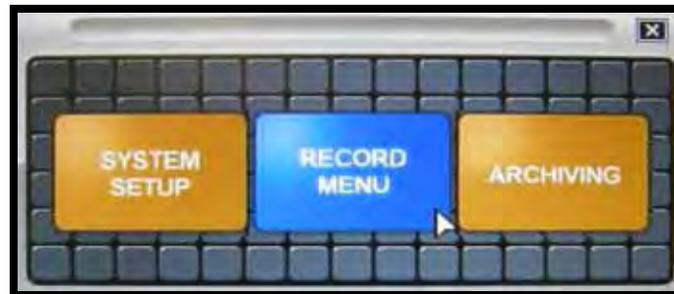


Appendix H: Setting up Motion Recording

The system is set to automatically start recording when powered on in Continuous Mode. You may wish to change these settings to better suit your security needs by having the cameras start recording when **MOTION** is detected. These settings can be changed for an individual cameras on one time block, or can be set for multiple cameras for multiple time blocks.

1. Press the Setup button on the front panel of the unit -or- Press the Setup button on the Remote Control -or- Right Click and select SETUP.

2. Highlight the Record Menu and press the Enter button.



3. Select the Continuous/ Motion Setup Menu.



4. Select the Schedule Menu.

5. Select all desired Time Blocks. Once the blocks have been selected, an options box will appear. Set the selected time blocks to MOTION.

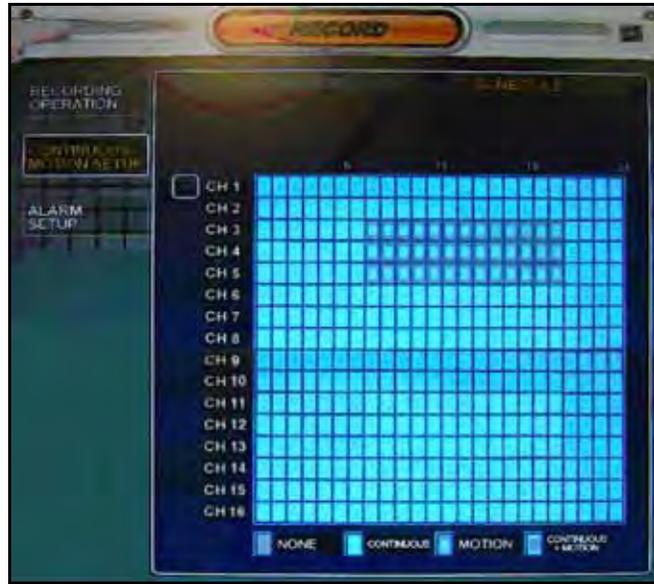
6. Press the Return Button or click the X to close the window.



7. The Schedule Window will be displayed, with the Motion Time blocks displayed as highlighted boxes.

8. Press the Return Button several times to exit the Recording Menus. Remember to **SAVE YOUR CHANGES!**

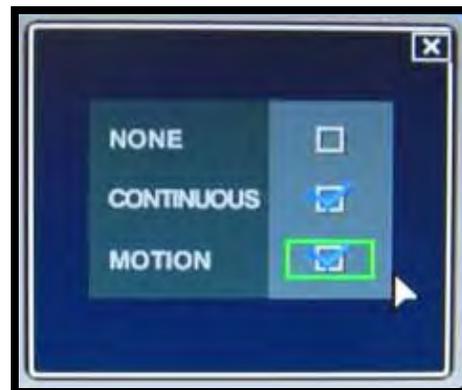
To check if the unit is recording in Motion, all channels should have a green box on the top right hand corner. When motion is picked up it will change to a red box with a yellow M.



Continuous & Motion

This system has an Advanced Recording Feature where BOTH Continuous and Motion can be set to ON at the same time:

- The system will record continuously, but when motion is detected the system will display a **M** recording type on the relevant channel.
- The event will be logged as Motion in the system archive.
- This is useful in situations where you want to have continuous recording, but wish to have Motion detected for easier event searching.
- In addition, an e-mail notification can be sent when Motion has been detected.



Motion Area Setup

Use the System menu to configure the Motion Detection areas.

Setting the motion detection areas are useful to mask in specific areas (i.e. Doors or Windows), so when movement is detected in these areas the System Recording will begin.

The Motion Mask area can also be set to remove certain areas which you do not want to have detect motion, such as a heavy traffic area, or a piece of machinery which is in continuous motion.

To change the Motion Detection Area:

- Select the **SYSTEM SETUP** option to configure the menu options.



- Select the Camera Setup option:

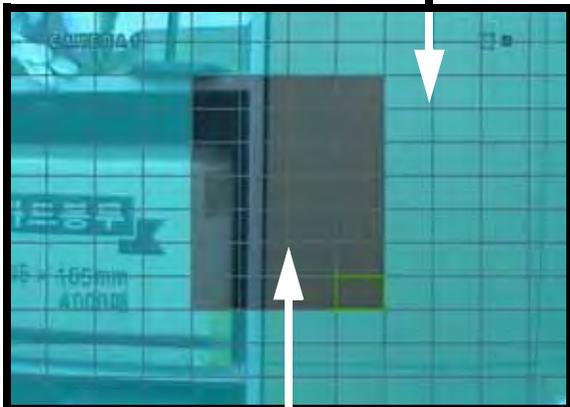


- Select the Motion Sensor Menu:



- Click on the AREA SETUP for the desired Camera.
- Use the Mouse to select or deselect areas for motion detection

Selected Areas are shaded in BLUE.



Deselected Areas are shaded in GREY.

- Press the Return Button, or Right Click to exit. Select to Save Changes & Exit.



Appendix I: Using the Storage Calculator

The Storage Calculator application is used to calculate the amount of recording time available on your hard drive, based on the System Recording Settings. This application is located on the Software Installation CD (provided with your System)



1. Select the settings to reflect the options you have chosen on your System:

CH1~CH8 - Select the channels to include in the Recording Calculation

Resolution - Set the recording Resolution to CIF (352x240), 2CIF (704x240) or D1 (704x480)

Quality - Set the recording Quality to Low, Standard, High or Highest.

FPS - Set the Frames Per Second for the recording to 1, 2, 4, 8, 15 or 30 FPS.

AUDIO - Set the Audio Recording selection to ON or OFF (if audio is being recorded on the system).

HDD Size - Select the size of the System Hard Drive.

	Resolution	Quality	FPS	Audio	Data/Hour (Mbyte)	Data/Day (Gbyte)
ALL	CIF	Highest	30	ON		
<input checked="" type="checkbox"/> CH# 1	CIF	Highest	30	ON	330.33	7.74
<input checked="" type="checkbox"/> CH# 2	CIF	Highest	30	ON	330.33	7.74
<input checked="" type="checkbox"/> CH# 3	CIF	Highest	30	ON	330.33	7.74
<input checked="" type="checkbox"/> CH# 4	CIF	Highest	30	ON	330.33	7.74
<input checked="" type="checkbox"/> CH# 5	CIF	Highest	30	OFF	302.20	7.08
<input checked="" type="checkbox"/> CH# 6	CIF	Highest	30	OFF	302.20	7.08
<input checked="" type="checkbox"/> CH# 7	CIF	Highest	30	OFF	302.20	7.08
<input checked="" type="checkbox"/> CH# 8	CIF	Highest	30	OFF	302.20	7.08

HDD Size: 320 GB

Total Report

Total Data/Hour(Mbyte) :	2530.13
Total Data/Day(Gbyte) :	59.30
HDD Size:	320 GB
HDD Full record time(Hour) :	129.51 Hour
HDD Full record time(Day) :	5.40 Day

Legend

CIF	352 x 240
2CIF	704 x 240
D1 :	704 x 480

CALCULATE

Main Screen - The Software loads with the following defaults selected. Use the dropdown selections to change the options to reflect your System settings.

2. Press the CALCULATE button. The Software will use all configurations to provide recording data specific to your System.

Total Report

Total Data/Hour(Mbyte) :	2530.13
Total Data/Day(Gbyte) :	59.30
HDD Size:	320 GB
HDD Full record time(Hour) :	129.51 Hour
HDD Full record time(Day) :	5.40 Day

Legend

CIF	352 x 240
2CIF	704 x 240
D1 :	704 x 480

CALCULATE

Example of Recording Time Calculations

Appendix J: Replacing the Hard Drive

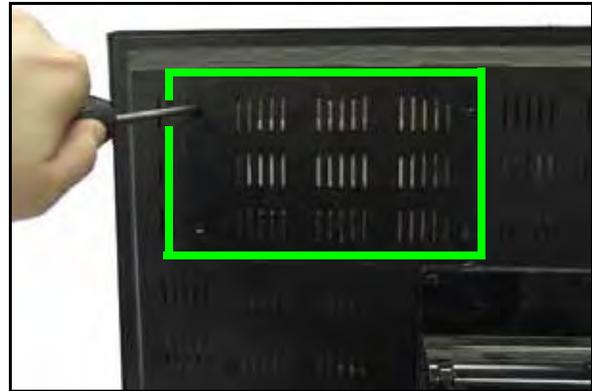
The System comes with a pre-installed Hard Drive, however the unit will work with a replacement single Hard Drive (up to 750GB).

NOTE: Make sure that the System is OFF and the power cable has been disconnected before changing the Hard Drive.

Removing the Hard Drive

To remove the installed hard drive:

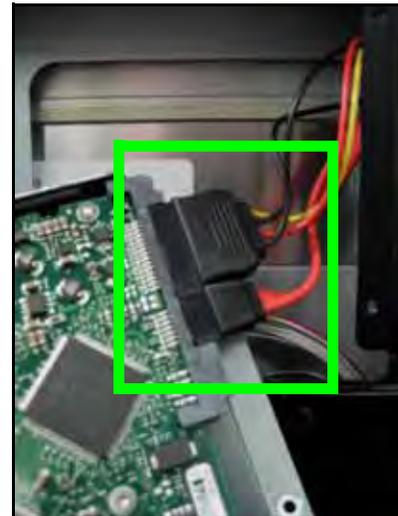
1. Using a Phillips screwdriver (not included) remove the screws from the metal hard drive cover on the back of the system.
2. Carefully remove the hard drive from the system.
3. Disconnect the power and data cables from the hard drive.
4. Remove the four mounting screws from the sides of the metal casing and carefully slide the hard drive out.



Replacing the Hard Drive

To install the new hard drive:

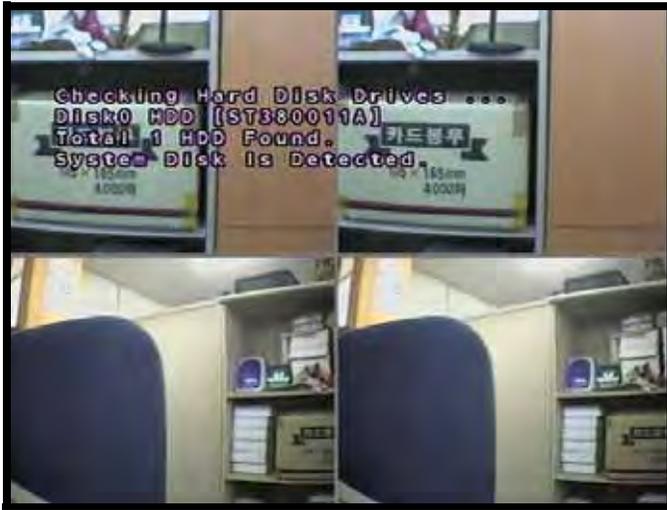
1. Carefully slide the new hard drive into the metal casing (label side down), and reattach the four mounting screws.
2. Connect the power and data cables to the hard drive—cables can only connect *one way*. Make sure that the cables are securely connected within the system and to the hard drive.
3. Carefully insert the hard drive in the unit. Gently slide the hard drive in place and line up the holes for the screws.
4. Reattach the screws firmly, locking the hard drive in place. The hard drive should be flush with the rear panel of the system.
5. Reconnect the power cable to the system.



Formatting the New Hard Drive

If a new **HARD DRIVE** is detected, the system will prompt you to **FORMAT** the drive.

ATTENTION: You **MUST** format the new hard drive in order for it to function properly with the system. If you do not choose to format the HARD DRIVE, the drive will **NOT** be detected by the system.



Mouse:

- Click **Yes**.

Remote Control:

- Press the  (Right arrow) button to select **YES** and press the  (Enter) button.

NOTE: Do NOT turn off the System while the drive is formatting. This can cause problems with the Hard Drive.

If you choose to **FORMAT** a drive in this way, the drive will no longer be readable by a regular PC without using the **HARD DRIVE VIEWER** software included on the CD provided with this unit.

The installation video is included with the Hard Drive that was pre installed with the System. If you change the hard drive, the installation video will no longer work. You can view the Installation Video using the included Software CD, or online at <http://www.lorecctv.com/support> in the Installation Guide section.

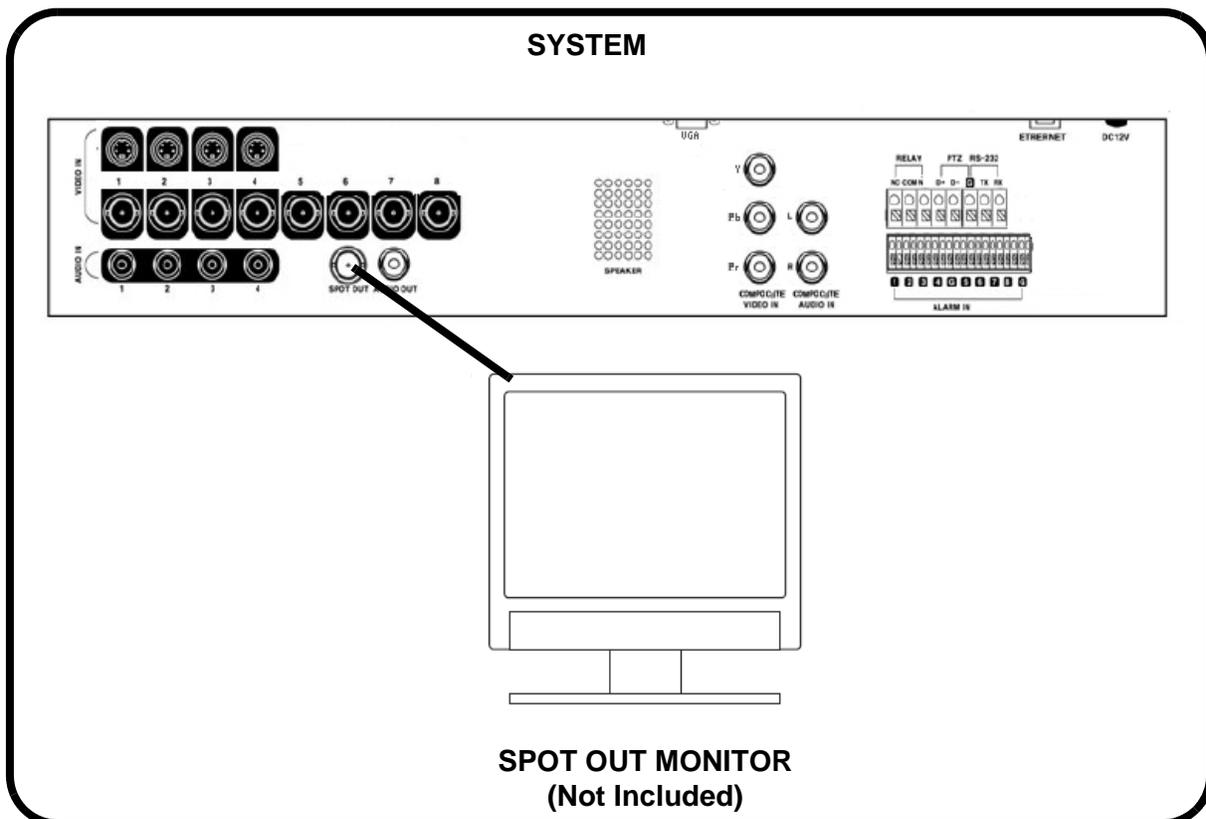
Appendix K: Connecting a Spot-Out Monitor

A connection to a Spot-Out Monitor (not included with the System) can be made through the SPOT OUT Port on the back of the System.

- **SPOT OUT** - Displays Cameras in Sequence mode, regardless of the display on the DVR (i.e Camera Views, Menus, Playback, etc.) to a TV or VCR.
- Configure the Spot Out settings using the System Menu controls (when in DVR Mode).



This feature is used for situations in which you want to have the system in a back room while still displaying images to the public eye, for theft deterrence or advertising purposes.



Appendix L: Connecting Motion / Alarm Devices

Motion detection and Alarm controls are enabled through the Menu system on the System. Additional motion sensor devices can be connected to the system (Motion Sensors, Door/Window Sensors).

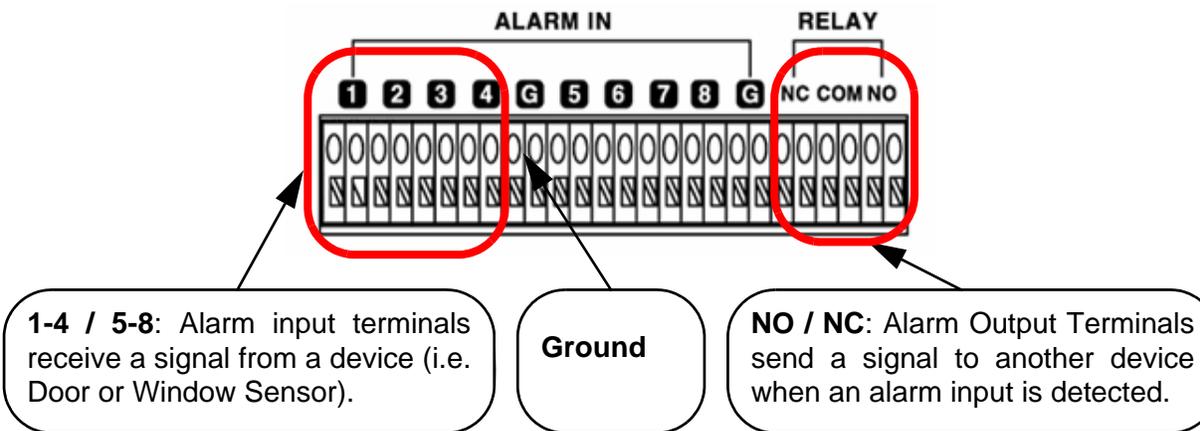
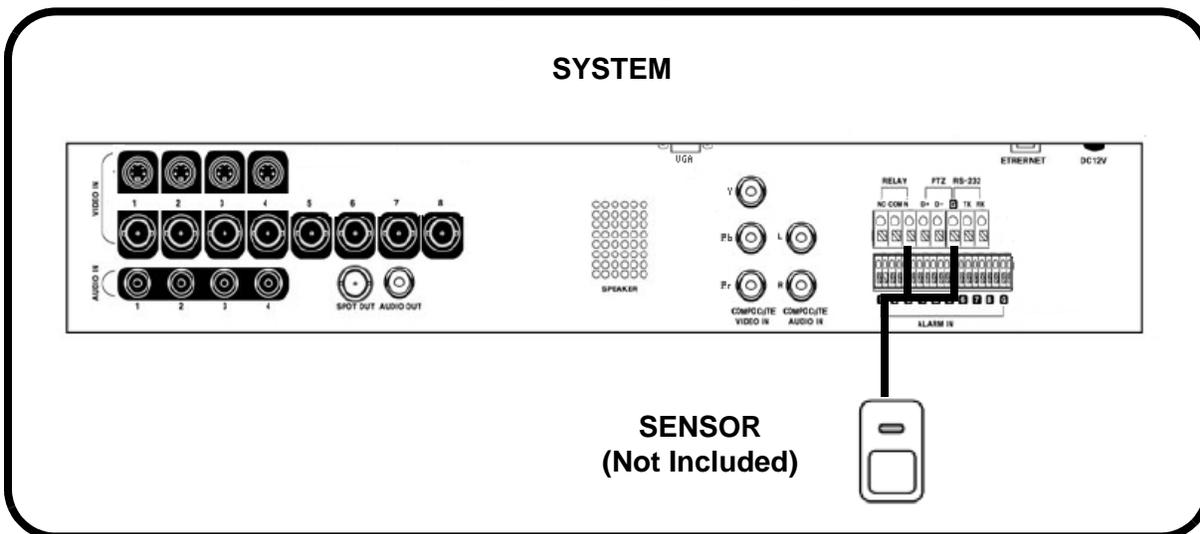
A motion detection or sensor unit can be used to send a signal to the System to begin camera viewing on the matching Video Channel (when enabled in the Menu).

- Example: A Window sensor unit has been installed on Alarm Block port #4. When this sensor is activated, the camera on DIN or BNC VIDEO port #4 will become active (if enabled in the MENU on the System)

Installing a Sensor

1. Connect the GROUND Cable to the GND port on the Alarm Block on the System
2. Connect the SIGNAL Cable to a numbered port (1-8)

To start ALARM RECORDING on the System, configure the System Menu.



Appendix M: Connecting PTZ Cameras

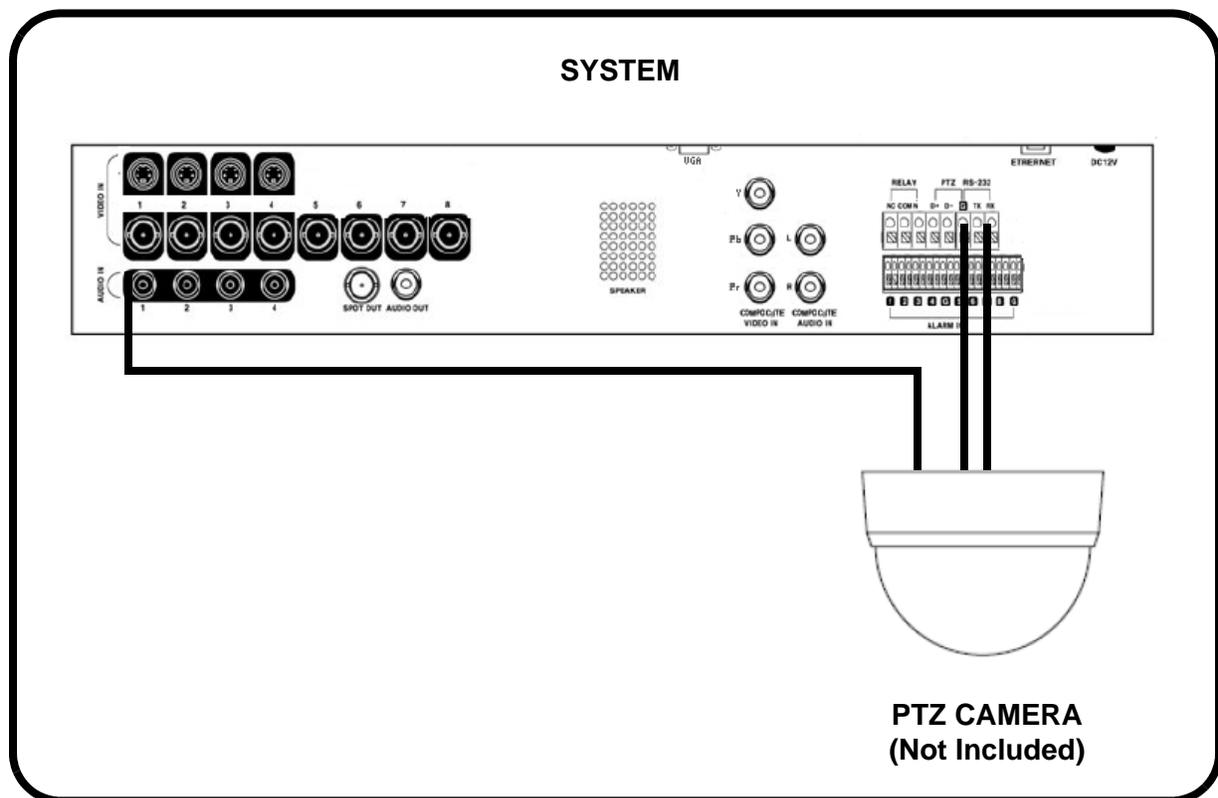
PTZ Cameras (not included with this system) can be connected to the PTZ Control Block on the back panel of the System. The PTZ Controls are enabled through the Menu system on the System. Additional PTZ Cameras are available at <http://www.lorexcctv.com>

Installing a PTZ (RS-485 Type) PTZ Camera:

1. Connect the Transmit Cable to the D+ port on the PTZ Control Block on the System.
2. Connect the Receive Cable to the D- port on the PTZ Control Block on the System.
3. Connect the Camera to a BNC Channel.
4. Configure PTZ Menu options. The PTZ Camera Settings will depend on the Type of Camera - refer to the specific Camera Manual for your brand and model of PTZ Camera.

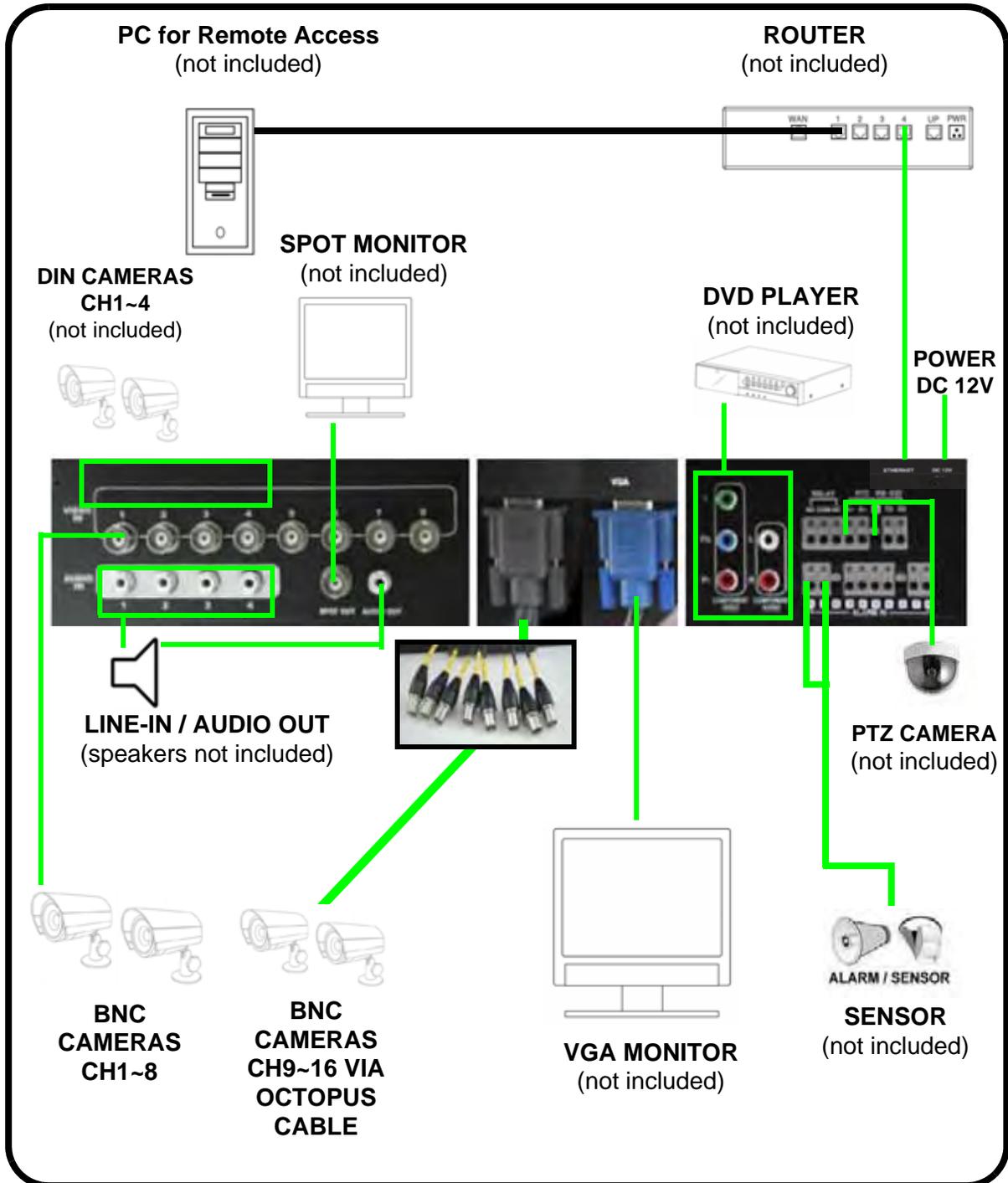
Installing a PTZ (RS-232 Type) PTZ Camera:

1. Connect the Transmit Cable to the TX port on the RS-232 Block on the System.
2. Connect the Receive Cable to the RX port on the RS-232 Block on the System.
3. Connect the Camera to a BNC Channel.
4. Configure PTZ Menu options. The PTZ Camera Settings will depend on the Type of Camera - refer to the specific Camera Manual for your brand and model of PTZ Camera.



Appendix N: Full Connectivity Diagram

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



LOREX PRODUCT LIMITED WARRANTY

Lorex warrants, to the original retail purchaser only, (the "Purchaser"), that this item (the "Product") if properly used and installed, and where applicable, the CD-ROM on which the accompanying software is provided, is free from manufacturing defects in material and workmanship, provided the Product is used in normal conditions and is installed and used in strict accordance with the instructions contained herein.

This warranty shall be for the following warranty periods (the "Warranty Period") commencing on the date the Purchaser buys the Product at retail in an unused condition.

Parts and Labor: 1 year (Warranted parts do not include Bulbs, LED's and Batteries)

- Lorex's obligations under this warranty shall be limited to:
- The repair and/or replacement of the product by means of hardware and/or software (at option of Lorex);
- The replacement of any warranted parts found by Lorex to be defective;
- If Lorex is unable to repair or replace the Product or CD-ROM, refund the then-current value of the Product. Any replacement parts furnished by Lorex in connection with this warranty shall be warranted to the Purchaser for a period equal to the unexpired portion of Warranty Period for the Product.

Warranty Exclusions

This warranty does not apply to Bulbs, LED's and Batteries supplied with or forming part of the product. This warranty is invalidated if other than Lorex accessories are or have been used in or in connection with the Product or in any modification or repairs made to the Product by other than a service depot authorized by Lorex. This warranty does not apply to damages or damages arising by use of the Product in other than normal (including normal start-up, operation, use and maintenance) conditions or use of the Product other than in strict accordance with the instructions contained in the Product or in the Product's User's Manual.

This warranty does not apply to misuse, neglect, alteration, repair or improper installation of the Product, (iii) electrical short circuits or transients; (iv) Purchaser misuse not in accordance with product installation; (v) use of replacement parts not supplied by Lorex; (vi) improper Product maintenance; or (vii) accident, fire, flood or other Acts of God.

This warranty does not cover the performance or functionality of any computer software included in the package with the Product. This warranty only covers defects in the CD-ROM media such as a broken or a defect in the CD-ROM that would prevent the CD-ROM from being read by your personal computer's CD-ROM drive. Lorex makes no warranty that the software provided with the Product will function without interruption or otherwise be free of anomalies, errors or "Bugs". Lorex makes no warranty with regard to any software provided with the Product unless specifically set forth otherwise in a license agreement accompanying such software. This warranty does not cover any costs relating to removal or replacement of any Product, CD-ROM, or software installed on your computer.

Lorex reserves the right to make changes in design or to make additions to or improvements in its products without incurring any obligation to modify any product which has already been manufactured. Lorex will make every effort to provide updates and fixes to its software via its website. This warranty does not cover any alteration or damage to any other software that may be or may become resident on the users system as a result of installing the software provided. This warranty is in lieu of other warranties, express or implied, and Lorex neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale or service of the Product. In no event shall Lorex be liable for any special or consequential damages arising from the use of the Product or arising from the malfunctioning or non-functioning of the Product, or for any delay in the performance of this warranty due to any cause beyond its control.

This warranty shall not apply to the appearance or accessory items including, but not limited to cabinets, cabinet parts, knobs etc., and the uncrating, setup, installation or the removal and reinstallation of products after repair.

Lorex does not make any claims or warranties of any kind whatsoever regarding the Product's potential, ability or effectiveness to prevent minimize, or in any way affect personal or property damage or injury. Lorex is not responsible for any personal damage, loss or theft related to the Product or to its use for any harm, whether physical or mental related thereto. Any and all claims or statements, whether written or verbal, by salespeople, retailers, dealers or distributors to the contrary are not authorized by Lorex, and do not affect this provision of this warranty.

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Lorex does not warrant that the software will operate with any other software except that which is indicated. Lorex cannot be responsible for characteristics of third party hardware or software which may affect the operation of the software included.

The purchaser may have other rights under state, provincial or federal laws and where the whole or part of any item of this warranty is prohibited by such laws, it shall be deemed null and void, but the remainder of the warranty shall remain in effect.

All expressed and implied warranties are limited in duration to the limited warranty period. No warranties apply after that period. Some states do not allow limitation on how long an implied warranty lasts, so this limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above warranty may not apply to you. This limited warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Obtaining Service

In order to obtain service, please make sure that you have registered your product online (www.lorexctv.com) in the warranty registration section. Should the Product require service under this warranty, the Purchaser must provide Lorex with a copy of his/her original, dated bill of sale, receipt or invoice, failing which Lorex will not perform any of its obligations under this warranty. If you return the Product and/or CD-ROM to Lorex, you must assume the risk of damage or loss during shipment. You must use the original packaging or the equivalent, and you must pay postage.

To claim on this warranty, proceed with the following steps:

- 1 Pack the Product in a well-padded sturdy carton.
 2. If the unit was purchased in the United States proceed as follows:
 - a. Please contact our customer service department to obtain a return authorization number.
 - b. Return the unit to:
 - Lorex Service Center
 - 2375 Hadley Rd., Plainfield, NJ 08168
 - ii.) If the unit was purchased in Canada proceed as follows:
 - a. Please contact our customer service department to obtain a return authorization number.
 - b. Return the unit to:
 - Lorex Service Center
 - 300 Alden Road, Markham, Ont. L3R 4C1
 - iii) If the unit was purchased in Europe please visit:
 - www.lorexinternational.com for return instructions.
 2. If the unit was purchased in the United States proceed as follows:
 - a. Please contact our customer service department to obtain a return authorization number.
 - b. Return the unit to:
 - Lorex Service Center
 - 2375 Hadley Rd., Plainfield, NJ 08168
 - ii.) If the unit was purchased in Canada proceed as follows:
 - a. Please contact our customer service department to obtain a return authorization number.
 - b. Return the unit to:
 - Lorex Service Center
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 - iii) If the unit was purchased in Europe please visit:
 - www.lorexinternational.com for return instructions.

TOLL FREE CUSTOMER SUPPORT
North America: 1-888-42-LOREX (1-888-425-6739)
South America: 800-42-LOREX (1-888-425-6739)
International: 800-42-LOREX (1-888-425-6739)
www.lorexctv.com

Always use discretion when installing video and/or audio surveillance equipment especially when there is perceived privacy, including regarding federal, state and/or local regulations applicable to the lawful installation of video and/or audio recording or surveillance. Party consent may be required.

GARANTEE LIMITÉE DES PRODUITS LOREX

Lorex garantit à l'acheteur original (ci-après désigné comme étant "l'acheteur") dans un magasin au détail seulement, et que ce produit (ci-après désigné comme étant le "produit"), s'il est installé conformément et s'il y a lieu, utilisé conformément aux instructions ci-inclues, et le disque CD-ROM qui comporte le logiciel, seront libres de tout défaut de fabrication, tant dans les pièces que la main-d'œuvre, pourvu que le produit soit utilisé dans des conditions normales et installé et utilisé strictement selon les instructions incluses dans le guide qui l'accompagne.

Cette garantie couvrira la période mentionnée ci-dessous (ci-après désignée comme étant la période de garantie), commençant le jour où l'acheteur se procure le produit à l'état neuf dans un magasin au détail.

*1 année (les pièces couvertes différencient
par les ampoules, voyants à DEL, ni les
pièces)*

Les obligations de Lorex selon les termes de cette garantie se limitent exclusivement aux points suivants :

- Lorex se réserve le droit de réparer ou de remplacer, sa seule discrétion, le logiciel et/ou le matériel.
- Le remplacement des pièces sous garantie que Lorex estime être défectueuses dans le produit ou le disque CD-ROM ou, à sa seule discrétion, le remplacement du produit jugé défectueux.
- Si Lorex ne peut réparer ni remplacer le produit ou le disque CD-ROM, rembourser la valeur monétaire du produit ou du disque CD-ROM en cours au moment de l'achat.

Toutes les pièces remplacées par Lorex seront couvertes pendant la période résiduelle de la garantie dudit produit.

Exclusions de la garantie

Pour obtenir du service, veuillez vous assurer que vous avez inscrit votre produit en ligne (www.lorexctv.com) dans la section d'abonnement à la garantie. Cette garantie ne couvre pas les ampoules, voyants à DEL, ni les piles incluses avec le produit ou faisant partie de celui-ci. Cette garantie deviendra nulle si des accessoires autres que ceux vendus ou distribués par Lorex sont utilisés ou ont été utilisés conjointement avec le produit ou si des modifications ou des réparations ont été effectuées au produit par une entité autre qu'un centre de service autorisé par Lorex.

Cette garantie ne s'applique pas aux défauts ni aux dommages survenus suite à une utilisation anormale du produit (incluant des conditions atmosphériques et des taux d'humidité anormaux) ou suite à une installation ou une utilisation du produit autre que celle décrite dans le guide accompagnant le produit.

Cette garantie ne s'applique pas aux défauts ni aux dommages causés au produit suite à (i) une utilisation insoignée du produit, (ii) mauvaise utilisation, abus, négligence, modification ou mauvaise installation du produit, (iii) court-circuits ou transitoires électriques, (iv) tout usage de l'acheteur qui ne correspond pas à l'installation prescrite du produit, (v) l'utilisation de pièces non fournies par Lorex, (vi) un entretien inadéquat du produit, ou (vii) tout accident, incendie, inondation ou autres désastres naturels.

Cette garantie ne couvre pas la performance ni la fonctionnalité de tout logiciel informatique inclus avec le produit. Cette garantie ne couvre pas les défauts que pourrait contenir le support optique (disque CD-ROM) ou magnétique (disquette), tel qu'un CD-ROM bisé ou comportant un défaut qui empêcherait d'être lu adéquatement par le lecteur de disque de votre ordinateur. Lorex ne garantit pas que le logiciel fourni avec le produit fonctionnera sans interruption ni qu'il sera libre de tout défaut, d'erreurs ou de bogues. Lorex ne garantit pas le logiciel inclus à moins que cela ne le soit mentionné spécifiquement dans l'enveloppe de la licence incluse avec le produit. Cette garantie ne couvre pas les frais se rapportant à l'abandonnement ni à la réinsertion de tout produit, logiciel, périphérique ou disque CD-ROM installé sur votre ordinateur.

Lorex se réserve le droit de modifier la conception ou d'apporter des ajouts ou des améliorations à ses produits, sans obligation de sa part de modifier les produits déjà fabriqués. Lorex fera tout en son pouvoir pour fournir des améliorations et des réparations à son logiciel via son site web. Cette garantie ne couvre pas les altérations ni les dommages effectués tout autre logiciel, ni les bogues pouvant résider de ta ou permanentement sur le système de l'utilisateur suite à l'installation du logiciel ci-inclus.

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