CAMERIO RX Series

Video Recording Server

RX364
RX368_V2
RX3616_V2

User Guide

CAMERIO
www.CAMERIO.com

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SECTION 1

Introduction

A. Introduction

CAMERIO RX Series Video Recording Server operates with its revolutionary multi-rate video coder to fulfill the highest video coding requirements for simultaneous transmission and recording. Seamless video transmission by **CAMERIO RX** can be performed in low and medium bandwidth communication networks including ADSL, ISDN and PSTN; whilst DVD-quality videos can be transmitted through LAN and recorded into local hard drive with optimum speed at 50/60fps at D1 resolution. Real time recording rate of up to 200/240fps on all video channels can also be achieved at CIF resolution.

CAMERIO RX provides professional and real life security control of premises with its sophisticated event management scheme. It responses to a wide range of events triggered by external alarm sensor, video motion, power interruption and tamper. There is an arm/disarm control for the event management mechanism. Every external alarm input is configurable with an individual entry/exit delay, fire zone and tamper detection setting. Various actions like sending video back to a designated receiving PC, video recording, email notification, etc. can be performed. **CAMERIO RX** can also keep a comprehensive log of the events for audit trail.

CAMERIO RX is designed to fully comply with the British Standard BS 8418:2003, providing professional remote monitoring and visual alarm verification solution to central monitoring station.

With a built-in DVD-writer, video footage stored inside **CAMERIO RX** can be easily extracted for evidential purposes. Recorded video can be backed up in CD/DVD and played back in any PC without any special software.

B. Features

Hardware Feature

- Video recording with rate up to 100/120fps (RX364), 200/240fps (RX368_V2 & RX3616_V2)
- Remote and standalone operations
- Composite video output with OSD menu
- SMAC-M multi-rate video coding technology
- Real time video transmission
  - Up to 60fps (RX364), 120fps (RX368_V2 & RX3616_V2) over LAN for NTSC
  - Up to 50fps (RX364), 100fps (RX368_V2 & RX3616_V2) over LAN for PAL
- Excellent picture resolution
  - Up to 720 x 480 pixels for NTSC
  - Up to 720 x 576 pixels for PAL
- 4 (RX364)/ 8 (RX368_V2) / 16 (RX3616_V2) video inputs with one video output
- 1 (RX364)/ 2 (RX368_V2 & RX3616_V2) audio inputs
- 1 Spot video output (RX368_V2 / RX3616_V2)
- 1 audio output and 1 public addressing (P.A.)output
- 4 relay switches and 16 alarm inputs
- 4 additional detection inputs
- Removable hard disk
- Built-in DVD writer

Functional Feature

- ***sure*LINK,** support both static and dynamic IP
- Sophisticated event management
- System arm/disarm
- Flexible connections: LAN, ADSL, PSTN, ISDN, mobile network, etc.
- Triplex operation: simultaneous video monitoring, recording & playback
- Video motion detection
- Event-driven recording
- Pre- & post-event video recording
- Entry/exit zone configurable on all alarm inputs
- Auto alarm dialback
- Connection authentication
- Compatibility with popular telemetry protocols
- Single-site monitoring
- Web-based video monitoring
- Programmable video recording
- Data retention
- Mobile monitoring

Introduction

C. Removing the Packages

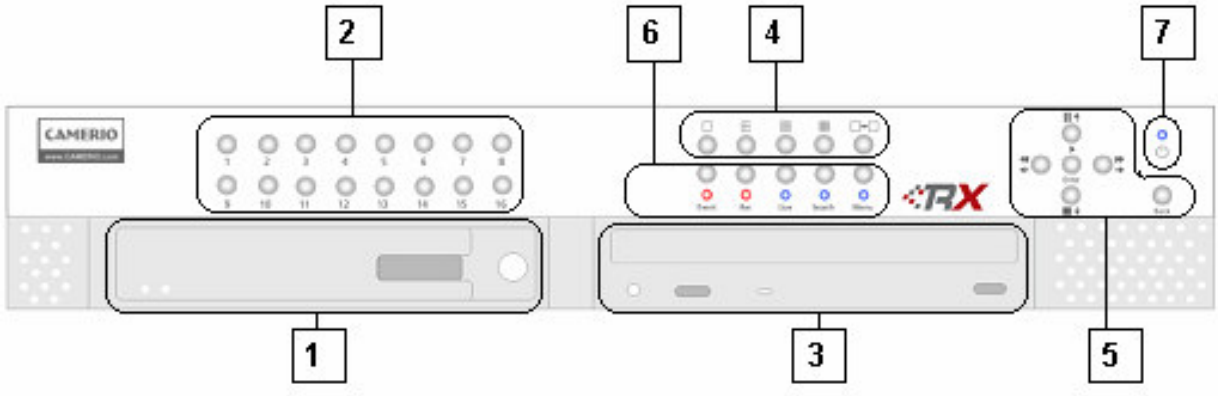
After removing the package, make sure you have the following items:

- CAMERIO RX Video Recording Server with Built-in DVD Writer
- Hard Disk Cartridge Accessories (Key x 2 and Screw x 4)
- User Guide
- Warranty Card
- Registration Code Sheet
- HDD Recommendation List
- Software CD
- Power Adaptor and Power Cord
- Alarm Port Connector (37 Pins) & Alarm Port Cover
- Resistors (1.2kΩ x 20, 6kΩ x 20)
- Straight-through Ethernet Cable

D. Convention Used in This Manual

“ ”	: Buttons on the CAMERIO RX video recording server front panel
{ }	: Hardware Items on the CAMERIO RX video recording server besides buttons
[ ]	: OSD menu or MS Windows menu
( )	: Refers to other section or page

E. Front Panel Description



Removable Hard Disk Cartridge

{Key Lock} and **{Key}** are provided to lock the hard disk from unauthorized removing and also be used to switch ON/OFF the system

Live Camera Control Buttons

For RX364 (1-4), RX368_V2 (1-8), RX3616_V2 (1-16)
“Camera Control” fast switch to a specific camera for local monitoring

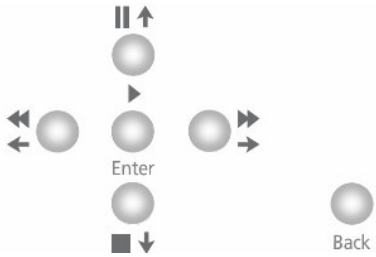
Built-in DVD Writer

It allows user to back up video to CD-R, CD-RW or DVD (Max size of 4700 MB)

Introduction

Screen Mode Control

For RX364  **For RX368_V2**  **For RX3616_V2** 	Full, Quad, 3 x 3, Hex screen mode:  The system will display one, four, eight, sixteen screens decided on the button pressed. Sequential mode will also be disabled. Sequential mode**:  The sequential button enables the sequential page mode of live monitoring. In sequential mode, screen mode can be changed by pressing the sequential button again. **In FULL screen sequential mode, the camera sequence can be set on user's preference. (Main Menu --- Setup --- Video --- Local monitoring --- Sequential Cams)



Menu Control Buttons / Local Playback Control Buttons / PTZ Control

Summary of Control Button

Buttons	Menu Mode	Playback Mode	PTZ Mode
	Cursor Up	Pause	Tilt Up
	Cursor Down	Stop	Tilt Down
	Cursor Left	Rewind	Pan Left
	Cursor Right	Forward	Pan Right
	Enter	Play	Zoom In
	Pervious Page	Back/Stop	Zoom Out

Introduction

Mode Control Buttons and LED

These 5 buttons are used for switching between the control modes

"Event" button	:	Pop up event menu
"Rec" button	:	Enable/disable normal or scheduled recording
"Live" button	:	View live video at any time and PTZ control in live mode
"Search" button	:	Playback log menu
"Menu" button	:	System settings and other system operations

Notification LEDs

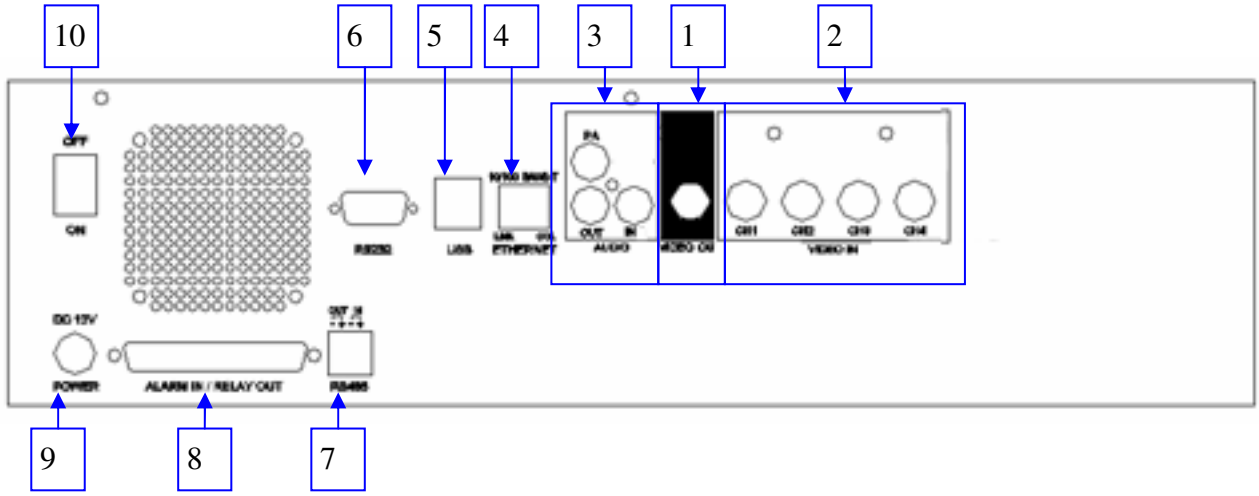
There are 5 notification LEDs, 2 red colors and 3 blue colors from left to right.

{Event LED}	:	Blinks when event is triggered
{Recording LED}	:	Is ON when the video recording server is recording
{Live LED}	:	Is ON during live monitoring
{Search LED}	:	Is ON when the system is in playback mode
{Menu LED}	:	Is ON when the system is in menu mode
{Power LED}	:	Is ON continuously when the system is powered up

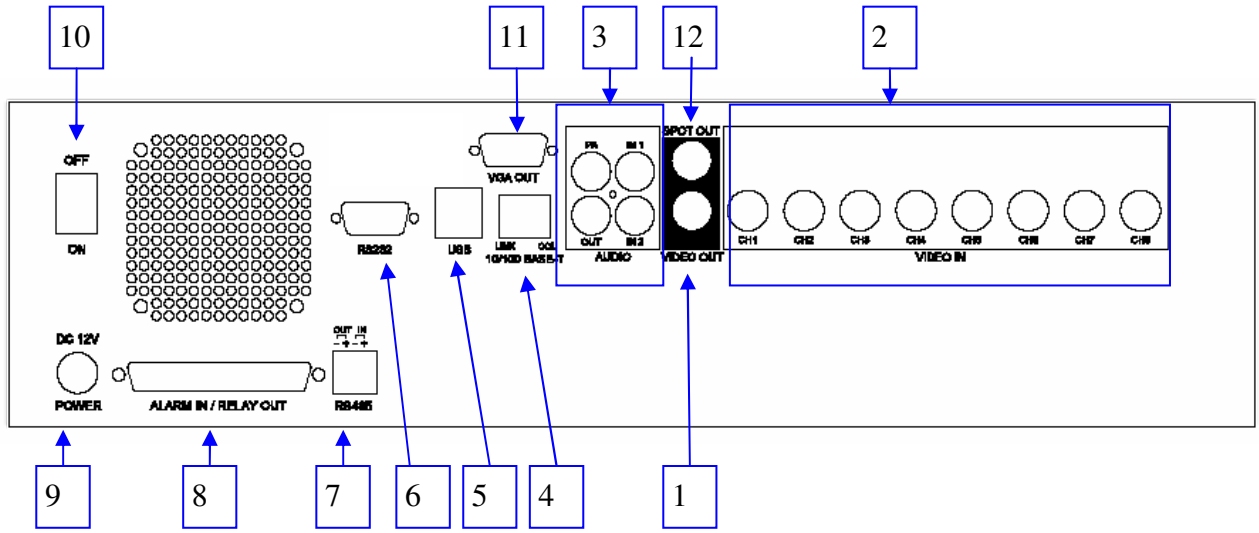
Introduction

F. Rear Panel Description

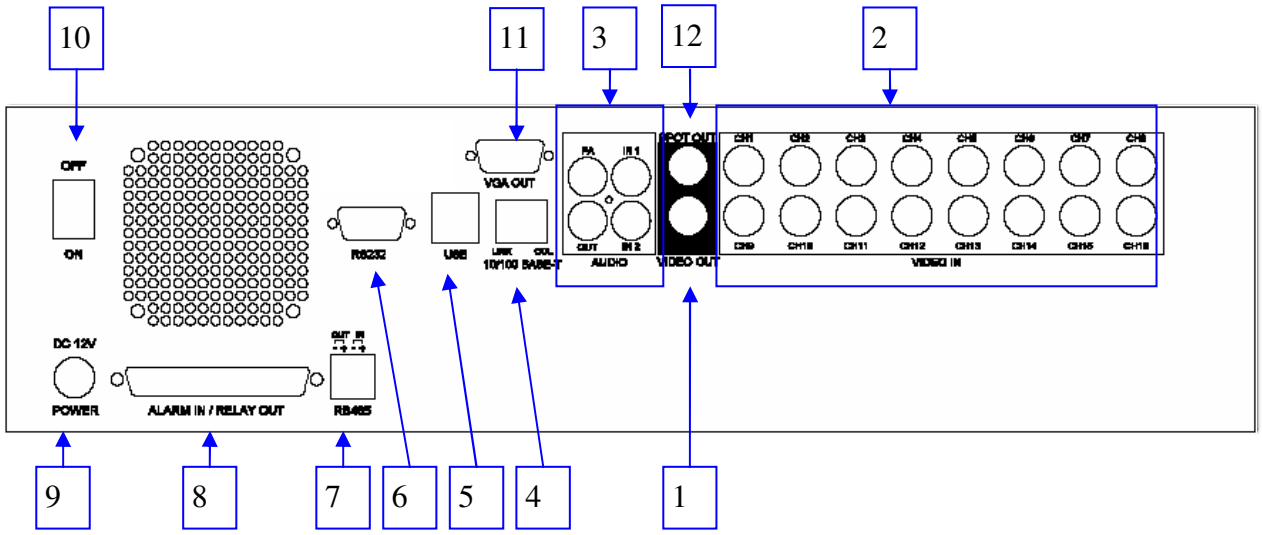
RX364:



RX368_V2



RX3616_V2



Introduction

1. **Video Output Connectors**
   - A composite video signal with 1V p-p is output from this connector
   - PAL/CCIR format with 625 lines, 25 frames per second
   - NTSC/EIA format with 525 lines, 30 frames per second

2. **Video Input Connector**
   - {Standard BNC connectors} for video source input
   - A composite video source from camera should be supplied to these connectors
   - CH1 – CH4 (RX364)
   - CH1 – CH8 (RX368_V2)
   - CH1 – CH16 (RX3616_V2)

3. **Audio In/Out Port**
   - {Audio In} : Connect audio input device (e.g. microphone) with RCA jack to **CAMERIO RX** video recording server for recording. (Only 1 {Audio In} for RX364)
   - {Audio Out}: Connect audio output device (e.g. speaker) with RCA jack to **CAMERIO RX** video recording server and generate output audio signal
   - {Audio PA} : Connect audio output device (e.g. speaker) to **CAMERIO RX** video recording server and generate audio signal to facilitate remote public addressing

4. **Ethernet Socket (10/100 Base-T)**
   - This socket is used for connecting **CAMERIO RX** to the corporate computer network (e.g. LAN)
   - This socket includes **{COL LED}** and **{LINK LED}**
   - **{COL LED}** : When ON, indicates that collision is occurring on the network
   - **{LINK LED}** : When ON, indicates that **CAMERIO RX** is connecting to the network and ready to function

5. **USB**
   - For support firmware upgrade, setting import/export, USB modem and footage backup.

6. **RS 232 (Modem) Port**
   - A {DB-9 Male Connector} of DTE format, capable for connecting to DCE such as modem, ISDN terminal adapter

Pin number	Definition	Direction
1	CD	Input
2	RXD	Input
3	TXD	Output
4	DTR	Output
5	GND	——
6	DSR	Input
7	RTS	Output
8	CTS	Input
9	——	

Introduction

7. **RS 485 In/Out Port**
   - {In}: 2-way terminal block for connecting a keyboard controller to CAMERIO RX video recording server in order to control a PTZ camera
   - {Out}: 2-way terminal block for connecting a PTZ camera
8. **Relay Out / Alarm In Port**
   - 4 relay (also call switch) outputs
   - 16 alarm inputs
   - All alarm ports are NC/NO type and none/SEOL/DEOL tamper type input
   - All relay ports are latching/push-button type output

9. **Power**
   - Connect power supply (12V DC) to CAMERIO RX video recording server

10. **Switch**
    - Switch on or off the CAMERIO RX video recording server

11. **VGA output (Optional)**
    - Standard VGA connector
    - RX368_V2 / RX3616_V2 only

12. **Spot Output**
    - A composite video signal with 1V p-p is output from this connector
    - RX368_V2 / RX3616_V2 only

Introduction

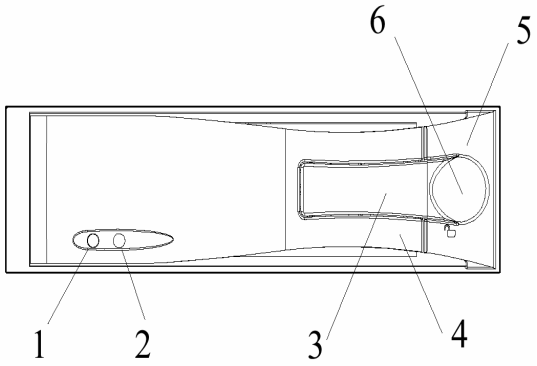
SECTION 2

Hard Disk Installation, Formatting and Scanning

A. Hard Disk Installation

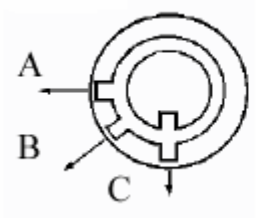
CAMERIO RX video recording server supports **ATA** standard hard disk. The hard disk is suggested to set in **Master Mode**. For details please refer to the hard disk case or its manual.

Hard Disk Front Panel Description



1. HDD activity indicator
2. Power indicator
3. Active-handle
4. Handle
5. Cartridge frame
6. Key lock

Key Lock Description

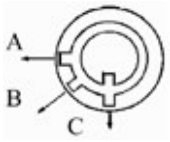


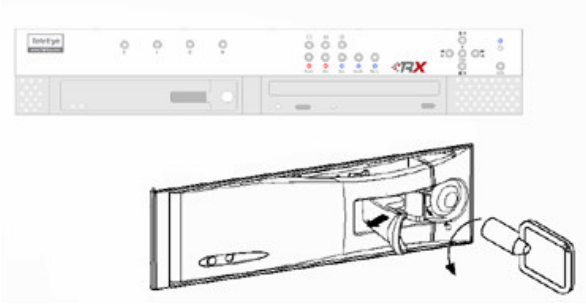
Status / Segment	Power status	Security status
A	ON	Locked (Non-removable)
B	OFF	Locked (Non-removable)
C	OFF	Unlocked (Removable)

Installation Procedure

RX MUST be shut down before installing / uninstalling hard disk

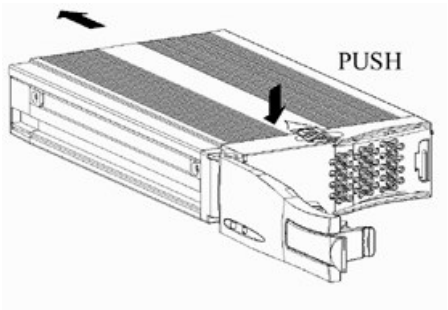
1. Press "**Menu**" Menu button, select **[SHUT DOWN]** option and press "**Enter**" Enter button.
2. **[SHUT DOWN]** menu will pop up and select **[SHUT DOWN]** option and press "**Enter**" Enter button.
3. Select **[YES]** and press "**Enter**" Enter button to confirm the shut down and wait for the message **[IT IS NOW SAFE TO TURN OFF RX]**.
4. Pull the active-handle outwards. Then use the bundled key provided and insert into the keyhole. Turn the key anti-clockwise (position C), then you can pull out the handle.

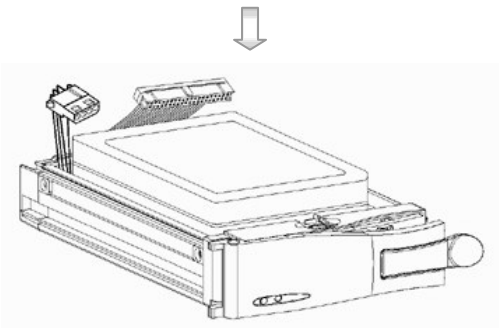




5. Pull the handle outwards to remove the carrier body away from the cartridge frame.

6. Push the release latch to slide the top cover backwards and remove.

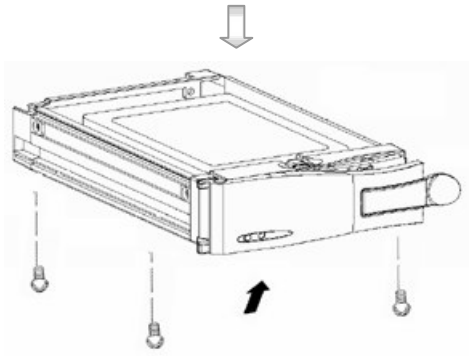




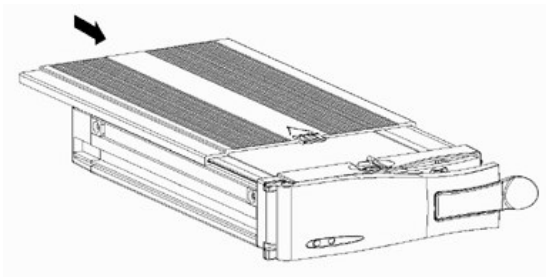
7. Insert the DC power cable and IDE cable on the HDD

Hard Disk Installation, Formatting and Scanning

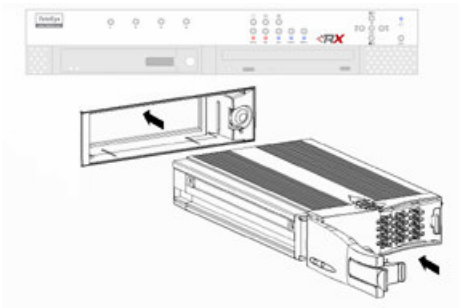
8. Position the HDD into carrier body and secure the HDD using the four screws provided.



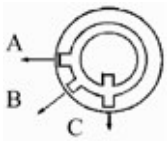
9. Slide the top cover back to the carrier body by sliding forward to secure.

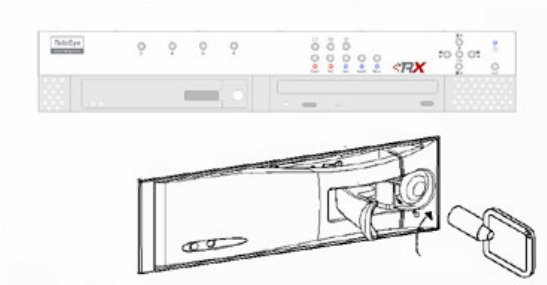


10. Slide the carrier body back into the cartridge frame and push carrier body further into cartridge frame until **fully inserted**.



11. Pull the active-handle outwards, then use the bundled key and insert into the keyhole, turning the key **clockwise** (position A) to secure the handle.





Hard Disk Installation, Formatting and Scanning

B. Hard Disk Formatting

Formatting a hard disk will erase all data in the hard disk. When it is reconstructed, it is readable by **CAMERIO RX** video recording server.

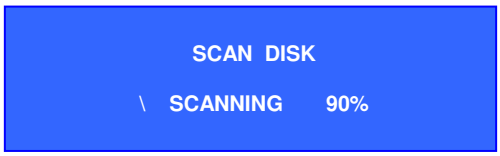
Formatting will be used if the hard disk format is NOT **CAMERIO RX** video recording server recognized. Usually, it is a new hard disk, or a hard disk which has not been used by **CAMERIO RX** video recording server.

Procedure

1. After starting up **CAMERIO RX** video recording server, OSD menu will pop up **[INCORRECT DISK FORMAT]** menu. Select **[YES]** option and press "**Enter**" Enter button to format the hard disk.

2. **[FORMAT DISK]** message board will pop up to show about the status

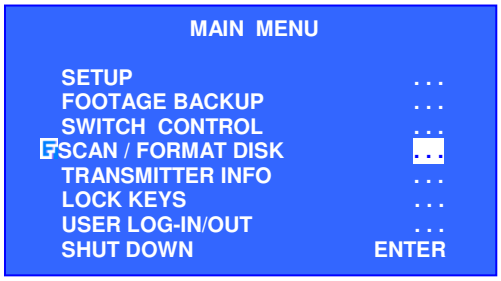
3. After finishing format process, **[SCAN DISK]** processing board will pop up to show the scanning status. The video recording server will restart.



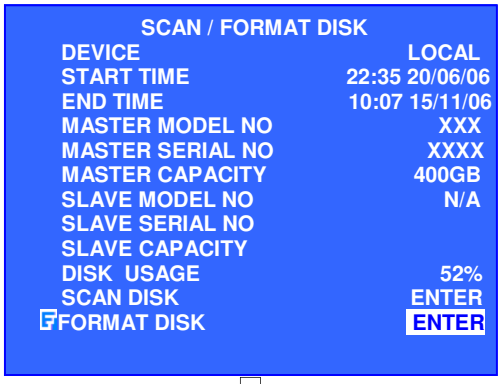
Manual Formatting

It will be used if user wants to format the hard disk so as to have a clean recording space and redeem the file allocation.

1. Press "**Menu**" Menu button, select **[SCAN/FORMAT DISK]** option and press "**Enter**" Enter button to enter **[SCAN/FORAMAT DISK]** sub menu.



2. Select **[FORMAT]** option press "**Enter**" Enter button



3. Select **[YES]** option and press "**Enter**" Enter button and **[FORMAT DISK]** board will pop up to show about hard disk format processing status

4. Press "**Enter**" Enter button to restart video recording server when **[FORMAT FINISHED]** message board pops up.

Note :

Select **[DEVICE]** *in scan/format disk menu and press "**Left**"* ◀◀ *or "**Right**"* ▶▶ *button to set* **[RX-SE1]** *option. Choose* **[FORMAT DISK]** *and select* **[YES]**. *The RX-SE1 will be formatted*

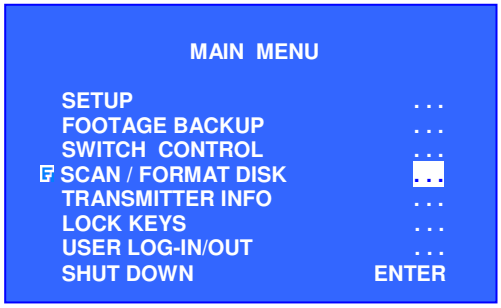
Hard Disk Installation, Formatting and Scanning

C. Scan Disk

It is a hard disk maintenance function which is similar to Scan Disk function provided by the Operating System of your personal computer. **CAMERIO RX** video recording server provides this function in an attempt to rescue the hard disk when errors are found, and to enhance its performance and reliability.

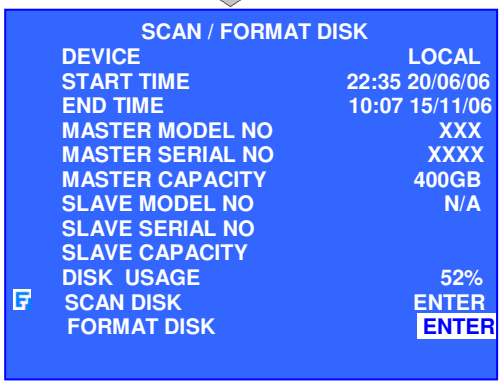
Procedure

1. Press "**Menu**" Menu button, select **[SCAN/FORMAT DISK]** option and press "**Enter**" Enter button to enter **[SCAN/FORAMT DISK]** sub menu.

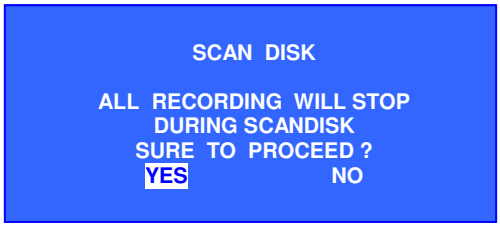


There is information about the hard disk. If not, please check that the hard disk is installed properly.

2. Select **[SCANDISK]** option press "**Enter**" Enter button.



3. Select **[YES]** option and press "**Enter**" Enter button to start the **[SCANDISK]** process.



Note :

Select **[DEVICE]** *in main menu and press "**Left**"* ◀ *or "**Right**"* ▶ *button to set* **[RX-SE1]** *option. Choose* **[SCAN DISK]** *and select* **[YES]**. *The RX-SE1 will be scanned.*

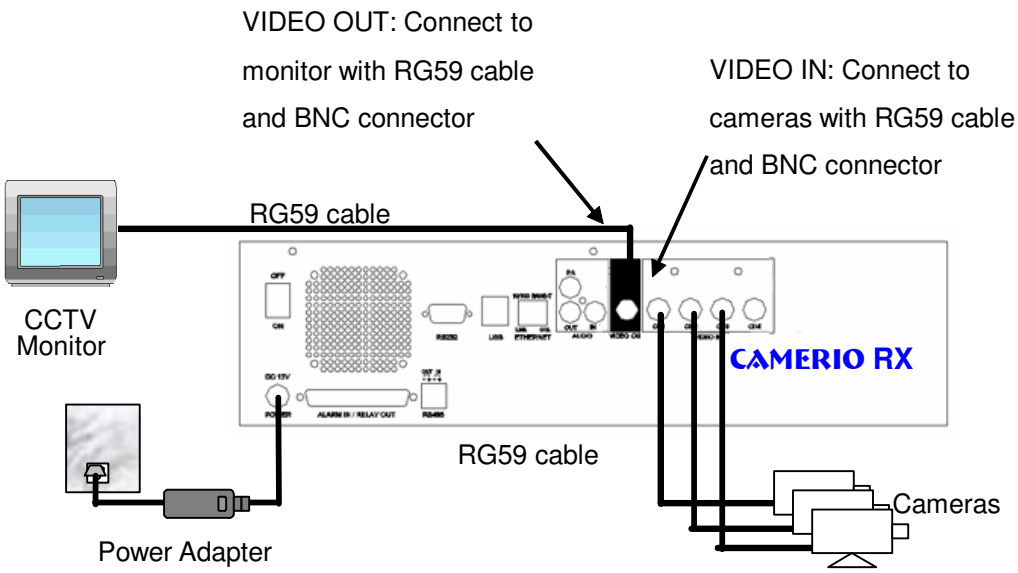
Hard Disk Installation, Formatting and Scanning

SECTION 3

Basic Installation for Local and Remote Monitoring

A. CAMERIO RX Setup for Local CCTV Monitor

Connection Topology



Note: **SPOT OUT only for RX368_V2 / RX3616_V2*

Equipment

- **CAMERIO RX** Video recording server
- Cameras
- Video Cables (RG-59) with BNC Header
- CCTV Monitor

Setup Procedure

1. Connect cameras to **CAMERIO RX {Video Input}** with RG59 cable and BNC connector.

   *Note: The camera system is either **NTSC** or **PAL** and all cameras must have the SAME system format.*

2. Connect CCTV monitor to **CAMERIO RX {Video Output}** with RG59 cable and BNC connector.
3. Install and use the bundled key to lock the **{Hard Disk Rack}** with hard disk to the **CAMERIO RX**.

   Note: If there is no hard disk installed, Recording and Playback are not functional

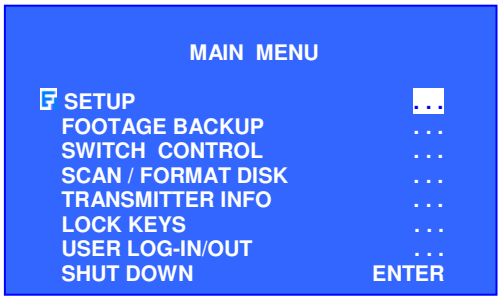
4. Plug in the power adapter (12V DC) to **CAMERIO RX**.

5. Turn on the power of **CAMERIO RX**, camera and monitor. Check the **{Power LED}** which is lit up in blue color continuously at **CAMERIO RX** front panel after power on. After several seconds, live video appears on the CCTV monitor as follows:

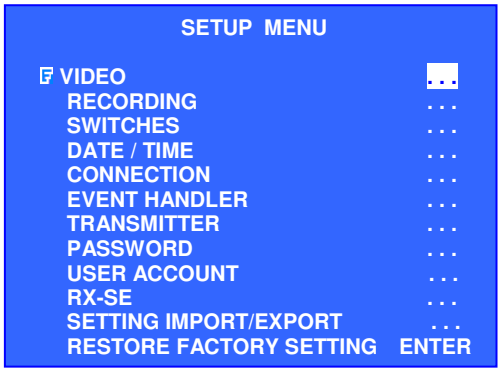
Note: Please go through the following steps (6-10) if CCTV monitor does not show video clearly

Basic Installation for Local and Remote Monitoring

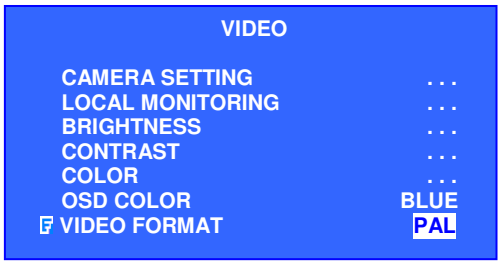
6. Press the "**Menu**" button to pop up the **[MAIN MENU]** on OSD.
7. Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button to enter the **[SETUP]** sub-menu.



8. Use "**Up**" or **Down**" button to select **[VIDEO]** option and press "**Enter**" button to enter the **[VIDEO]** sub-menu.

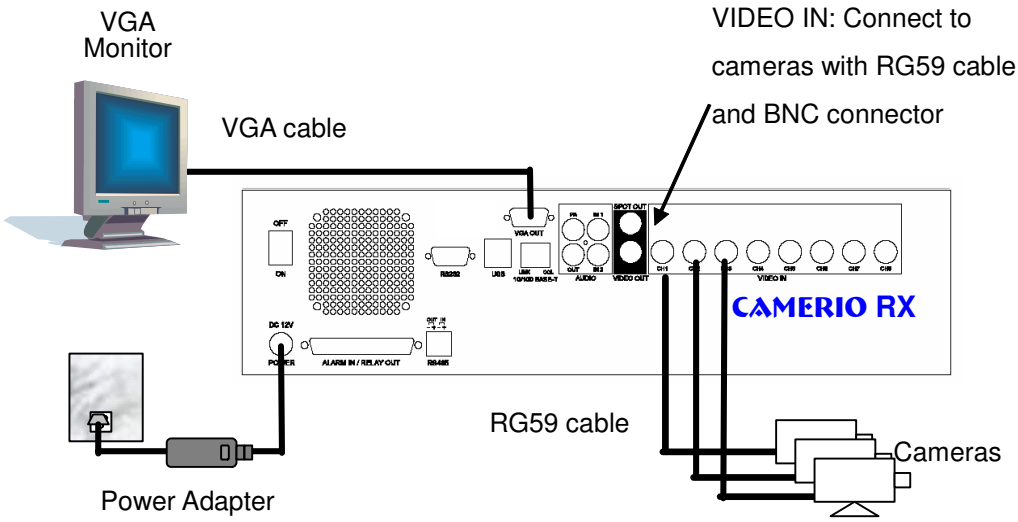


9. Select **[VIDEO FORMAT]** and press "**Left**" or "**Right**" button to set either **[NTSC]** or **[PAL]** option. (All cameras should have the same video format).
10. You can always press "**Live**" button to exit any menu operation and start live monitoring.



B. CAMERIO RX Setup for VGA Monitor

Connection Topology



Note: **VGA OUTPUT only for RX368_V2 / RX3616_V2 with optional VGA module installed .*

Equipment

- **CAMERIO RX** Video Recording Server
- Cameras
- VGA cable
- VGA Monitor (support 1024x768 / 1280x1024 / 60Hz / 75Hz)

Basic Installation for Local and Remote Monitoring

Setup Procedure

1. Connect cameras to **CAMERIO RX {Video Input}** with RG59 cable and BNC connector.

   *Note: The camera system is either **NTSC** or **PAL** and all cameras must have the SAME system format.*

2. Connect VGA monitor to **CAMERIO RX {VGA Output}** with VGA Cable.
3. Install and use the bundled key to lock the **{Hard Disk Rack}** with hard disk to the **CAMERIO RX**.

   Note: If there is no hard disk installed, Recording and Playback are not functional

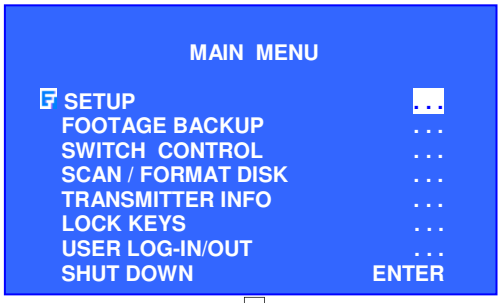
4. Plug in the power adapter (12V DC) to **CAMERIO RX**.

5. Turn on the power of **CAMERIO RX**, camera and monitor. Check the **{Power LED}** which is lit up in blue color continuously at **CAMERIO RX** front panel after power on. After several seconds, live video appears on the VGA monitor as follows:

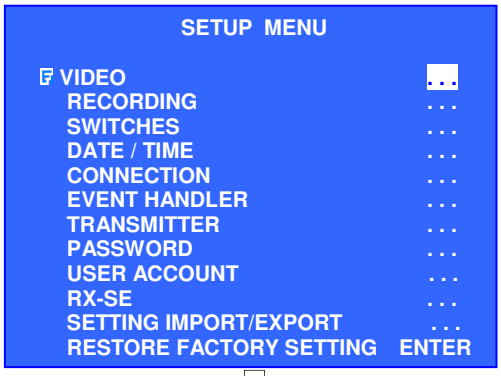
Note: If video does not shown on VGA monitor correctly, please check the VGA monitor support RX default VGA setting (1024x768 resolution, 60Hz). If VGA monitoring does not support default VGA setting, please use WX-30 reception software to select proper settings after setup network connection.

Basic Installation for Local and Remote Monitoring

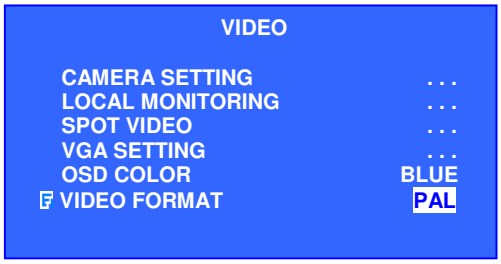
6. Press the "**Menu**" button to pop up the **[MAIN MENU]** on OSD.
7. Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button to enter the **[SETUP]** sub-menu.



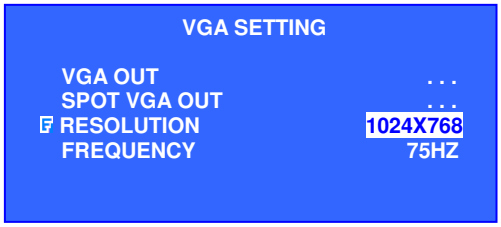
8. Use "**Up**" or **Down**" button to select **[VIDEO]** option and press "**Enter**" button to enter the **[VIDEO]** sub-menu.



9. Select **[VIDEO FORMAT]** and press "**Left**" or "**Right**" button to set either **[NTSC]** or **[PAL]** option. (All cameras should have the same video format).



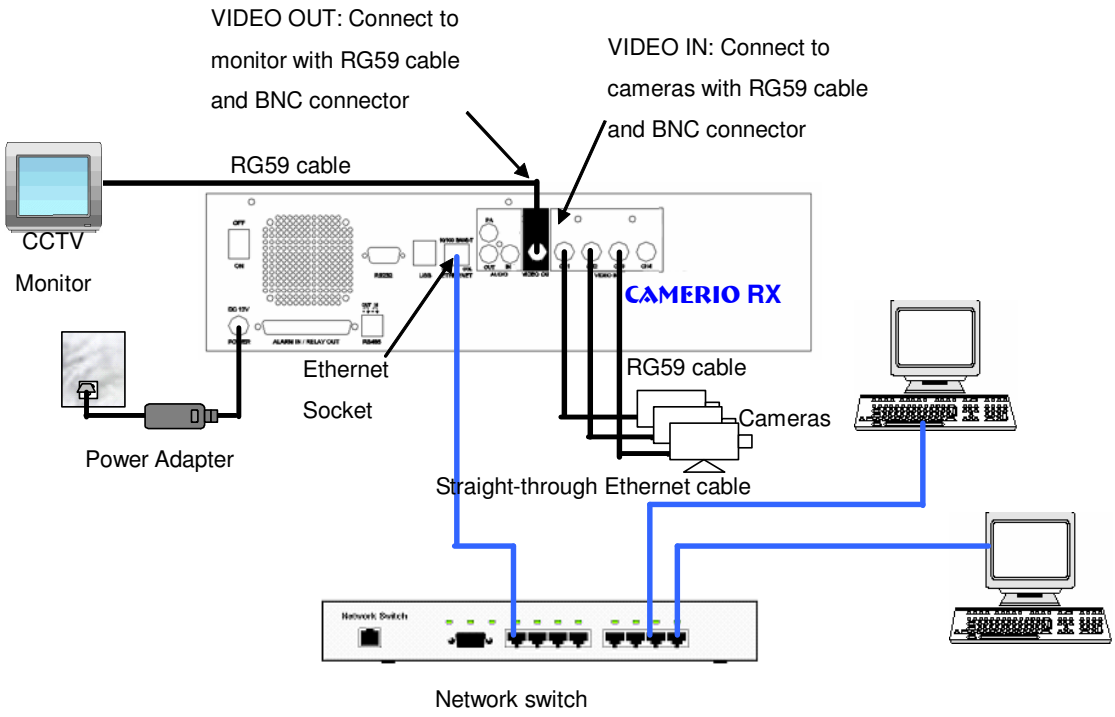
10. Select **[VGA SETTING]** and press "**Enter**" button to enter **[VGA SETTING]** menu.
11. Select **[RESOLUTION]** and press "**Left**" or "**Right**" button to set VGA resolution according to the VGA monitoring
12. Select **[FREQUENCY]** and press "**Left**" or "**Right**" button to set VGA frequency according to the VGA monitoring



13. You can always press "**Live**" button to exit any menu operation and start live monitoring.

C. CAMERIO RX Setup for LAN Connection with Static IP

Connection Topology



Equipment

- **CAMERIO RX** Video recording server
- Network Switch
- Straight-through Ethernet Cable (bundled)
- Cross-over Ethernet Cable
- Cameras
- Video Cables (RG-59) with BNC Header
- CCTV Monitor
- CD ROM with WX-30 Software (bundled) (for PC operation only)
- PC

PC Requirements

- **CPU** : Pentium IV 2.4 GHz or above
- **RAM** : 512 MB or above
- **Display** : 1024 x 768, true color or better
- **OS** : MS Windows 2000, XP
- **HDD** : 1GB of free disk space or above

Basic Installation for Local and Remote Monitoring

Setup Procedure

1. Connect cameras to **CAMERIO RX {Video Input}** with RG59 cable and BNC connector.

   *Note: The cameras system is either **NTSC** or **PAL** and all cameras must have the SAME system format.*

2. Connect CCTV monitor to **CAMERIO RX {Video Output}** with RG59 cable and BNC connector.
3. Install and use the bundled key to lock the **{Hard Disk Rack}** with hard disk to the **CAMERIO RX**.

   Note: If there is no hard disk installed, Recording and Playback are not functional

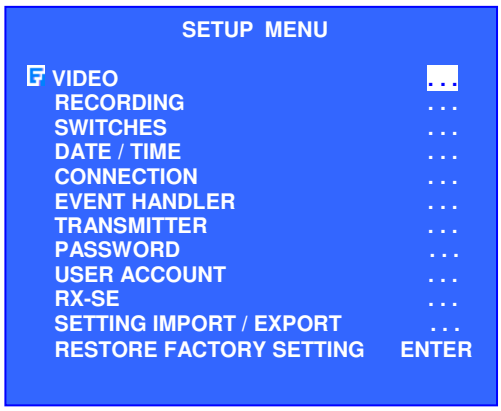
4. Connect the power adapter (12V DC) to the **CAMERIO RX**.

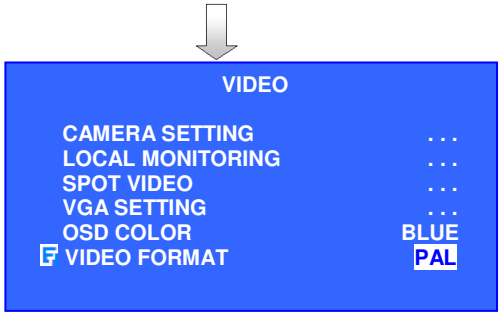
5. Turn on the power of **CAMERIO RX**, camera and monitor. Check the **{Power LED}** which is lit up in blue color continuously at **CAMERIO RX** front panel after power on. After several seconds, live video appears on the CCTV monitor as follows:

Note: Please go through the following steps (6-10) if the video of CCTV monitor does not show clearly.

Basic Installation for Local and Remote Monitoring

6. Press the "Menu" button to pop up the **[MAIN MENU]** on OSD.
7. Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button to enter the **[SETUP]** sub-menu.
8. Select **[VIDEO]** option and press "Enter" button to enter the **[VIDEO]** sub-menu



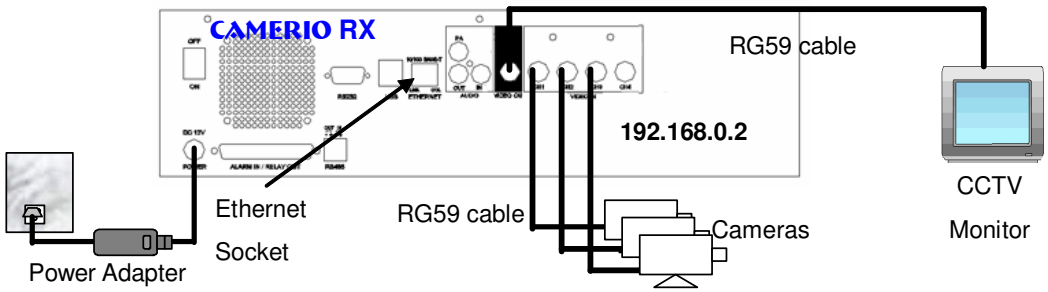


9. Select **[VIDEO FORMAT]** and press "**Left**" or "**Right**" button to set either **[NTSC]** or **[PAL]** option. (All cameras should have the same video format).
10. You can always press "**Live**" button to exit any menu operation and start live monitoring.

11. Configure **CAMERIO RX** video recording server IP setting

Setup **CAMERIO RX** video recording server IP through CCTV monitor, please go to step 11a.
Setup **CAMERIO RX** video recording server IP through PC, please go to step 11b.

11.a.1 Configure **CAMERIO RX** video recording server IP setting through CCTV Monitor

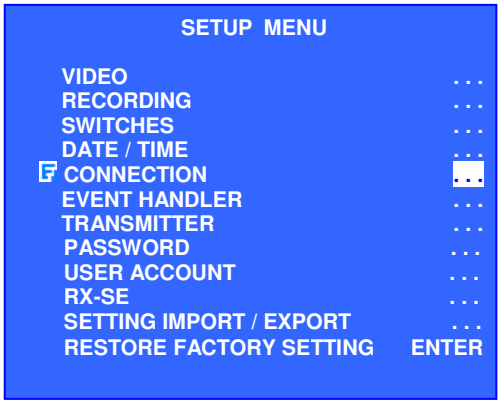


Basic Installation for Local and Remote Monitoring

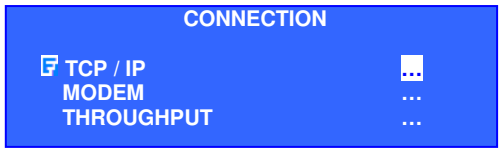
11.a.2 Press the "**Menu**" button such that the OSD main menu opens on the monitor.

11.a.3 Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button to enter **[SETUP]** sub menu.

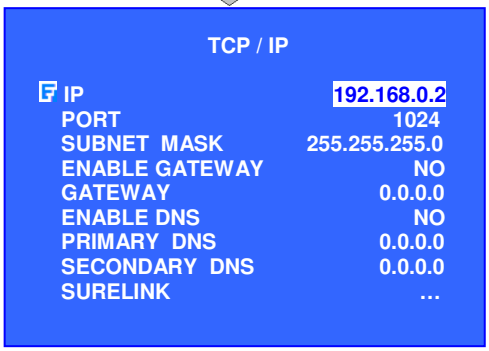
11.a.4 Select **[CONNECTION]** option and press "**Enter**" button to enter connection setting menu.



11.a.5 Select **[TCP/IP]** option and press "**Enter**" button



11.a.6 Select **[IP]** option and press "**Enter**" button. IP address consists of four fields. Each field can assign a number from **0** to **255**

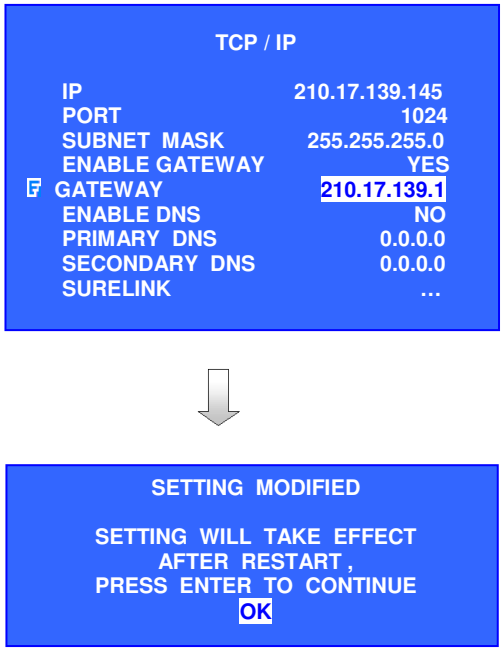


11.a.7 Use "**Left**" or "**Right**" button to select field and use "**Up**" or "**Down**" button to set number.

11.a.8 Press "**Enter**" button to save the change and return previous menu.

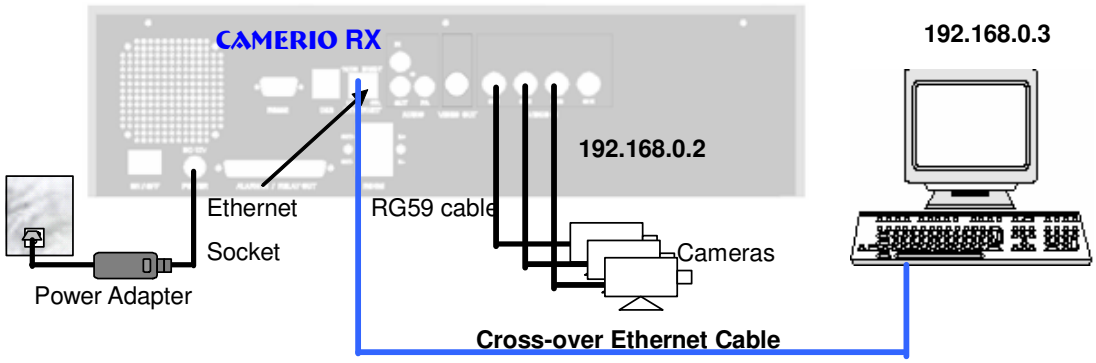
11.a.9 Follow the network setting and assign a valid subnet mask to **[SUBNET MASK]** and select **[ENABLE GATEWAY]** option and input **[GATEWAY]** option in similar way.

Note: The DNS setting is optional which is useful for ***sure*LINK**, time synchronization and e-mail notification.



11.a.10 Press "**Live**" Live button, then **[SETTING MODIFIED]** message board will pop up. Press "**Enter**" Enter button to restart the **CAMERIO RX**.

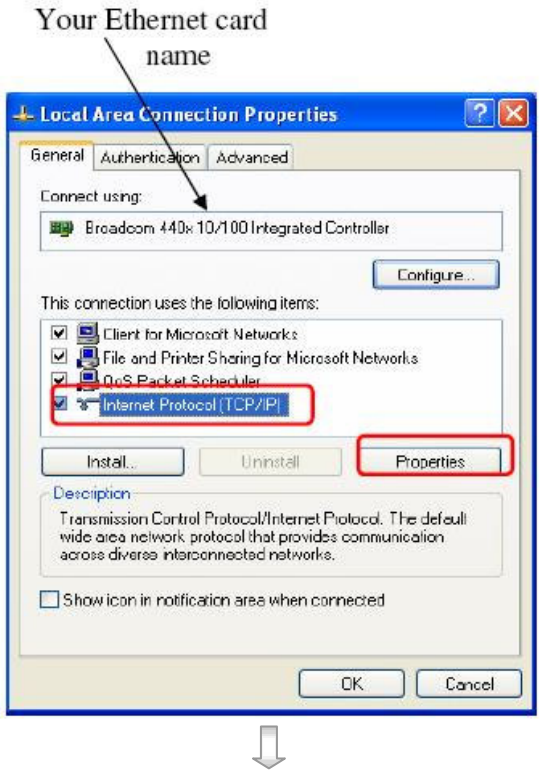
11.b Configure **CAMERIO RX** video recording server IP setting through PC



11.b.1. In Windows 2000/XP desktop, select **Start > Control Panel**

11.b.2. Double click **Network and Dial-up Connections** > right click **Local Area Connections** and choose **Properties**.

11.b.3. Choose **Internet Protocol (TCP/IP)** and click **Properties**

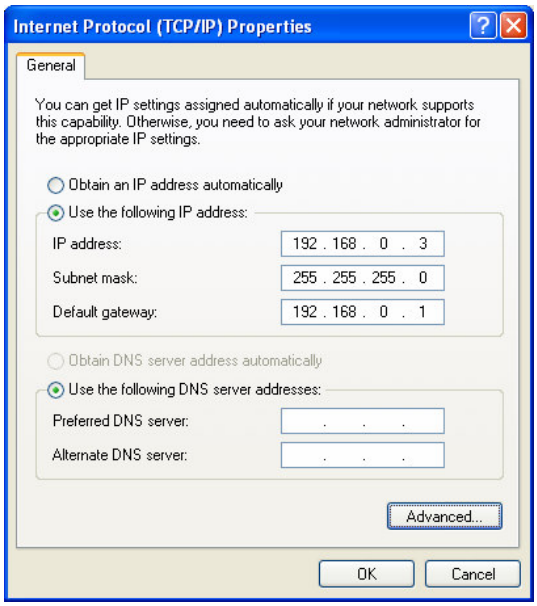


11.b.4. Enter an **IP address, subnet mask** and **Default gateway**. ***Note that IP address should be "192.168.0.xx" except "192.168.0.2" which is*** **CAMERIO RX** ***default IP address.***

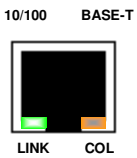
11.b.5. Enter the **Preferred** and **Alternate DNS server**, if necessary.

11.b.6. Click **OK** to activate the new IP.

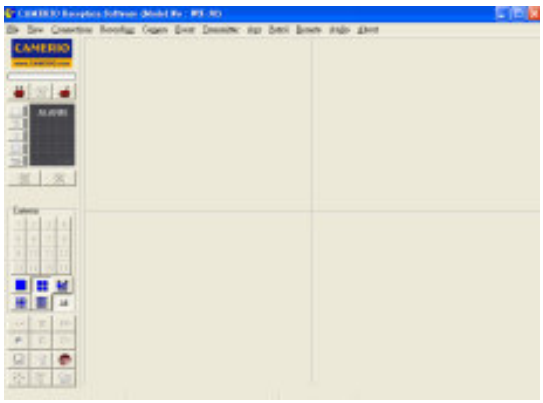
You have to confirm that IP address has been correctly set on your computer. On your windows, click **start > run,** type "**cmd**" at open field, press **OK** button, type "**ipconfig**" on the DOS prompt and you will see an IP set on your computer.



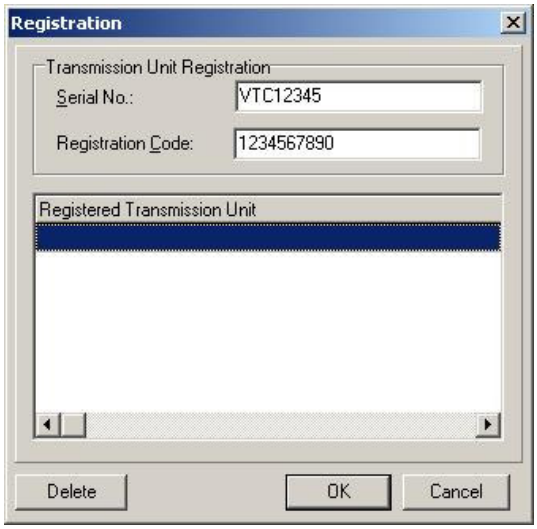
11.b.7. Connect the PC Ethernet socket to the video recording server Ethernet socket at rear panel of the video recording server with **cross-over** Ethernet cable. Check if the **{LINK LED}** of the video recording server is **ON**.



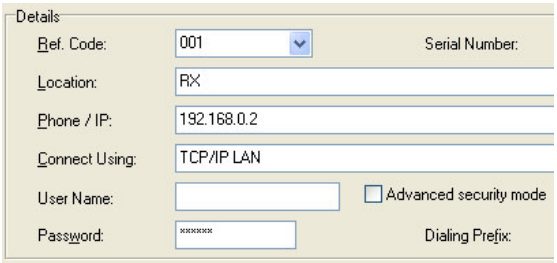
11.b.8. Run WX-30 software which has been installed to the PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)



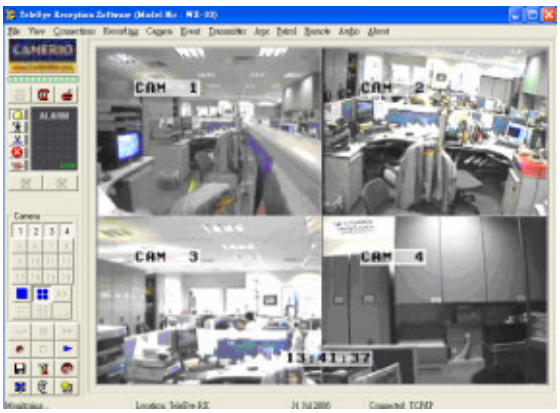
11.b.9. Choose **[Transmitter]** → **[Registration]** to register the **CAMERIO RX** video recording server. User needs to input video recording server serial number and registration code.
For example :
Serial No. : VTC12345
Registration Code : 1234567890



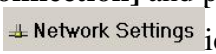
11.b.10. Press **[Connect]**  icon to pop up the **[Connect Window]**. Type and select the following setting :
Phone/IP : 192.168.0.2
Connect Using: TCP/IP LAN
Password: 000000
IP (192.168.0.2) and **Password** (000000) are default setting of **CAMERIO RX**
If RX is set to advanced security mode, check **Advanced security mode** box and enter **User Name**



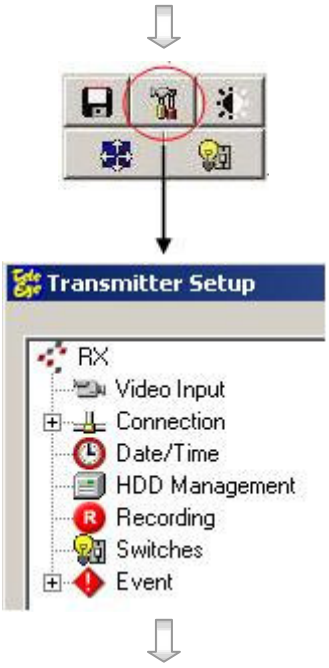
11.b.11. Press **[Connect]**  icon to connect your PC to the video recording server. Live video is shown on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and show you failure message. For failure case, please press **[Connect]**  icon to check that the connection setting is valid or not.



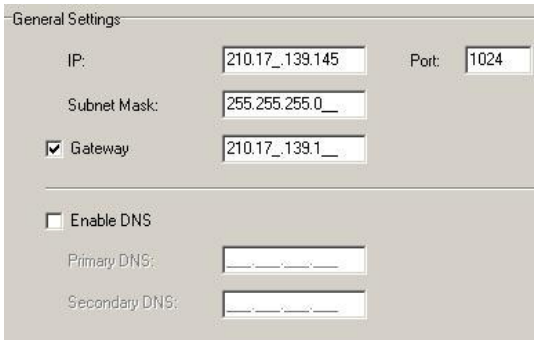
11.b.12. Press **[Transmitter Setup]**  icon to show **CAMERIO RX** configuration menu.

11.b.13. Select **[Connection]** and press **[Network Settings]** 

icon to configure network setting.

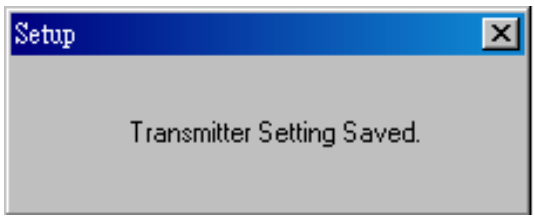


11.b.14. Change the IP from 192.168.0.2 to 210.17.139.145 (for example). Gateway setting is used for WAN. Primary and Secondary DNS setting are used for ***sure*LINK**, time synchronization or e-mail notification function.



11.b.15. Press **[Apply]** 

icon to save the network setting and the message board will pop up. After several seconds, the video recording server will restart automatically.



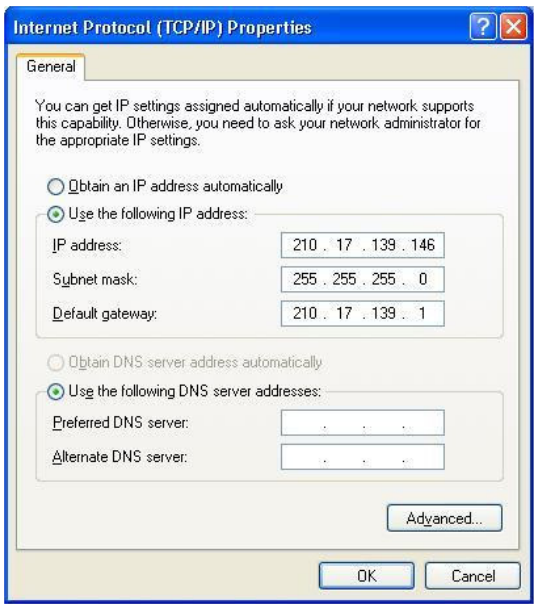
11.b.16. In Windows 2000/XP desktop, select **Start > Control Panel**

11.b.17. Double click **Network and Dial-up Connections** > right click **Local Area Connections** and choose **Properties**.

11.b.18. Choose **Internet Protocol** (TCP/IP) and click **Properties**

11.b.19. Enter the **IP address, subnet mask** and **Default gateway** for the PC to **restore to its original network configuration**.

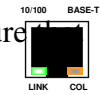
Note: The first 3 field of IP address should be same as **CAMERIO RX** *video recording server IP and gateway address. IP address is "210.17.139.146" and gateway address is "210.17.139.1" in this example.*

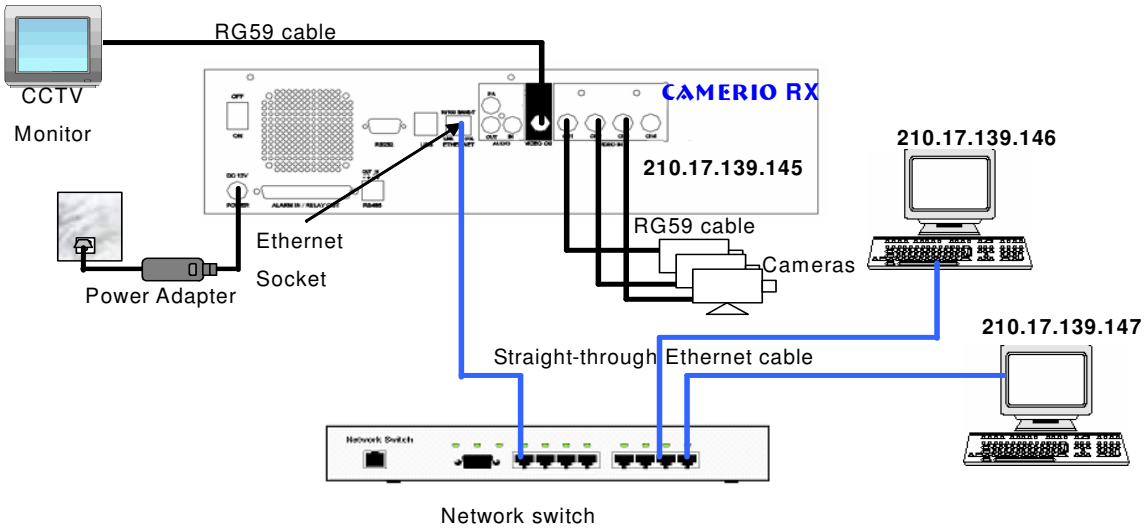


11.b.20. Click **OK** to apply the settings

12. Disconnect the **CAMERIO RX** video recording server and current PC. Reconnect the video recording server and current PC to the LAN network through **straight-through Ethernet cable**.

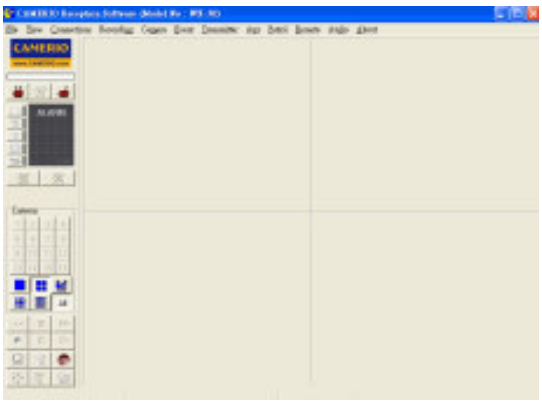
13. Check Ethernet socket of both **CAMERIO RX** video recording server and PC to ensure the **{GREEN LINK LED}** turns ON. Then connection diagram is shown as below:



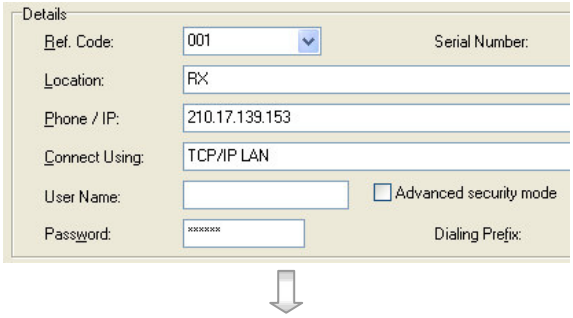


Basic Installation for Local and Remote Monitoring

14. Run **WX-30** software at any local network PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)

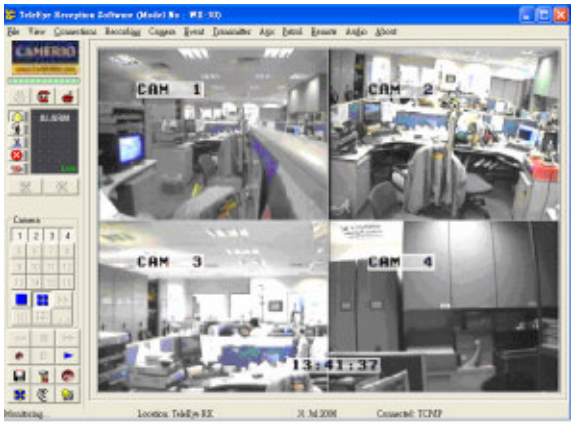


15. Press **[Connect]**  icon to pop up the **[Connect Window]**. For example, type and select the following setting :
    Phone/IP : 210.17.139.153
    Connect Using: TCP/IP LAN
    Password: 000000
    If RX is set to advanced security mode, check **Advanced security mode** box and enter **User Name**



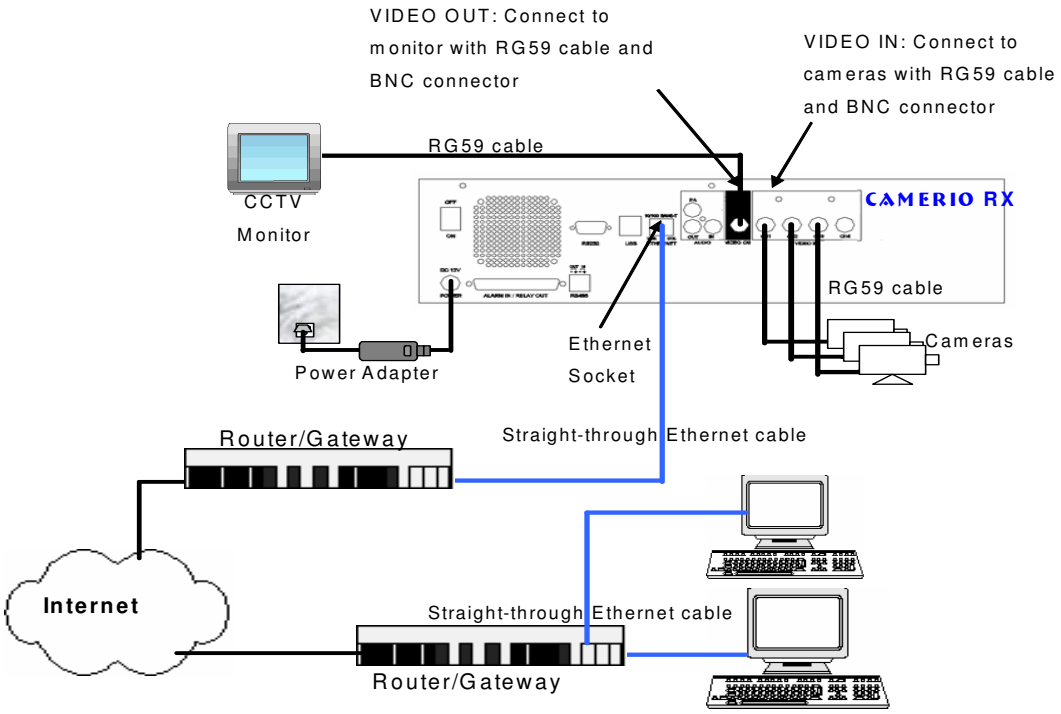
16. Press **[Connect]** 

icon to connect your PC and the video recording server. The video appears on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and failure message will be shown. For failure case, please press **[Connect]**  icon to check that the connection setting is valid or not.



D. CAMERIO RX Setup for Broadband or Narrowband Internet Connection with Static IP

Connection Topology



Remark for Internet Connection Definition

Broadband : Connection speed is equals to 128kbps or above, e.g. ADSL, DSL.
Narrowband : Connection speed is below 128kbps, e.g. dial up network, GPRS

Equipment

- **CAMERIO RX** Video recording server
- Network Switch, Router/Gateway
- Straight-through Ethernet Cable (bundled)
- Cross-over Ethernet Cable
- Cameras, Video Cables (RG-59) with BNC Header
- CCTV Monitor
- CD ROM with WX-30 Software (bundled) (for PC operation only)
- PC

PC Requirements

- **CPU** : Pentium IV 2.4 GHz or above
- **RAM** : 512 MB or above
- **Display** : 1024x768, true color or better
- **OS** : MS Windows 2000, XP
- **HDD** : 1 GB of free disk space or above

Basic Installation for Local and Remote Monitoring

Setup Procedure

1. Connect cameras to **CAMERIO RX** {Video Input} with RG59 cable and BNC connector.

   *Note: The camera system is either **NTSC** or **PAL** and all cameras must have the SAME system format.*

2. Connect CCTV monitor to **CAMERIO RX** {Video Output} with RG59 cable and BNC connector.
3. Install and use the bundled key to lock the {Hard Disk Rack} with hard disk to the **CAMERIO RX**.

   Note: If there is no hard disk installed, Recording and Playback are not functional.

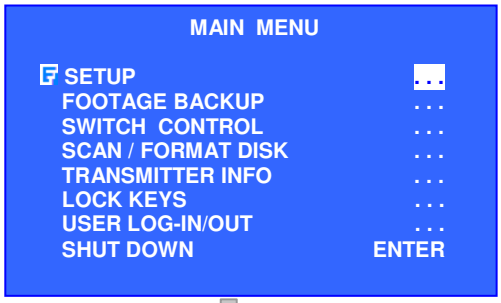
4. Connect the power adapter (12V DC) to the **CAMERIO RX**.

5. Turn on the power of **CAMERIO RX**, camera and monitor. Check the **{Power LED}**, which is lit up in blue color continuously at **CAMERIO RX** front panel after power on. After several seconds, live video appears on the CCTV monitor as follows:

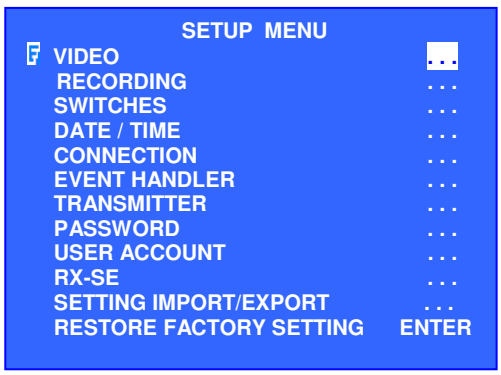
Note: Please go through the following steps (6-10) if the video of CCTV monitor does not show clearly.

Basic Installation for Local and Remote Monitoring

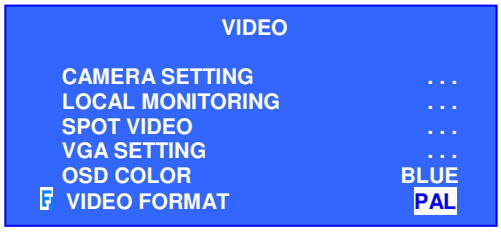
6. Press the "**Menu**" button to pop up the **[MAIN MENU]** on OSD.
7. Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button to enter the **[SETUP]** sub-menu.



8. Select **[VIDEO]** option and press "**Enter**" button to enter the **[VIDEO]** sub-menu.

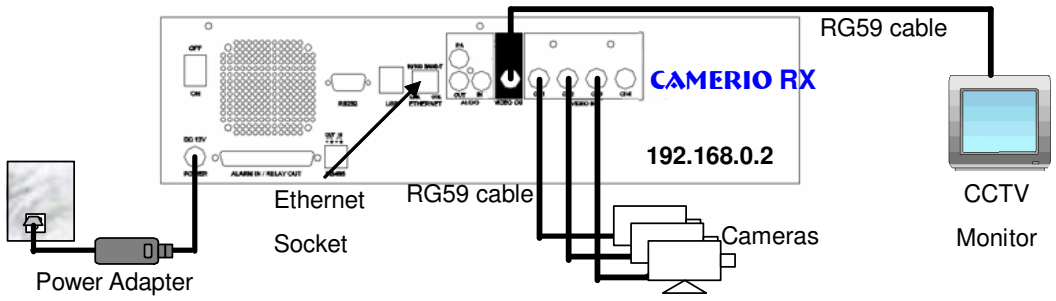


9. Select **[VIDEO FORMAT]** and press "**Left**" or "**Right**" button to set either **[NTSC]** or **[PAL]** option. (All cameras should have the same video format).
10. You can always press "**Live**" button to exit any menu operation and start live monitoring.



Setup **CAMERIO RX** video recording server IP through CCTV monitor, please go to step 11a.
Setup **CAMERIO RX** video recording server IP through PC, please go to step 11b.

11.a Configure **CAMERIO RX** video recording server IP setting through CCTV Monitor



Basic Installation for Local and Remote Monitoring

11.a.1 Press the "**Menu**" button such that the **OSD main menu** pops up on the monitor.

11.a.2 Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button.

11.a.3 Select **[CONNECTION]** option and press "**Enter**" button

11.a.4 Select **[TCP/IP]** option and press "**Enter**" button

11.a.5 Select **[IP]** option and press "**Enter**" button. IP address consists of **four fields**. Each field can assign a number from **0 to 255**.

11.a.6 Use "**Left**" or "**Right**" button to select field and use "**Up**" or "**Down**" button to set number.

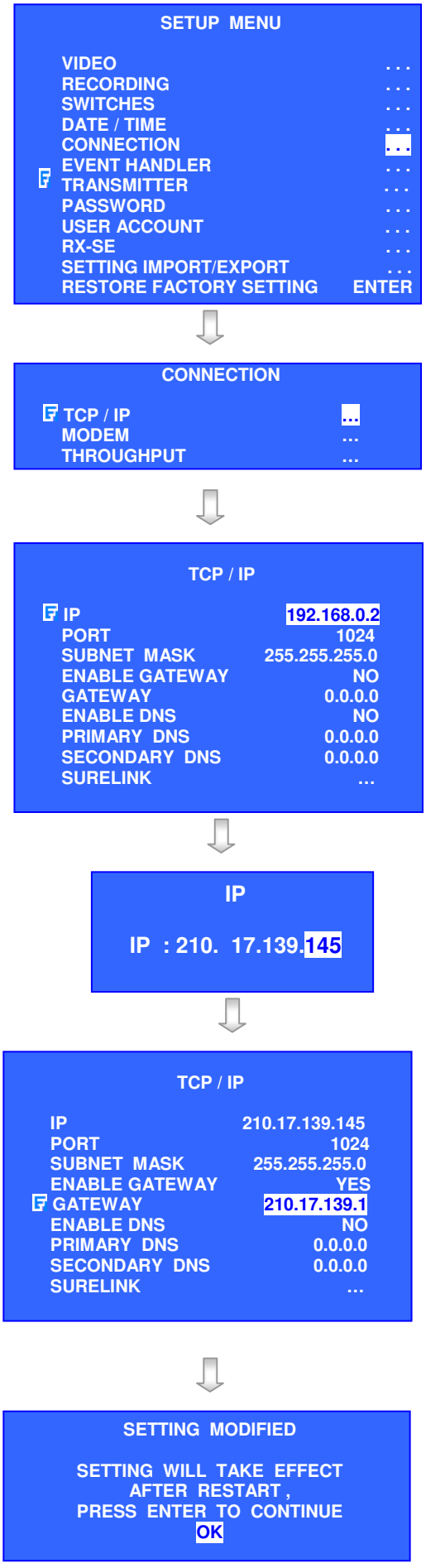
11.a.7 Press "**Enter**" button to save the change and return previous menu.

11.a.8 Follow the network setting and assign valid subnet mask to **[SUBNET MASK]** and select **[ENABLE GATEWAY]** option and input **[GATEWAY]** option in similar way.

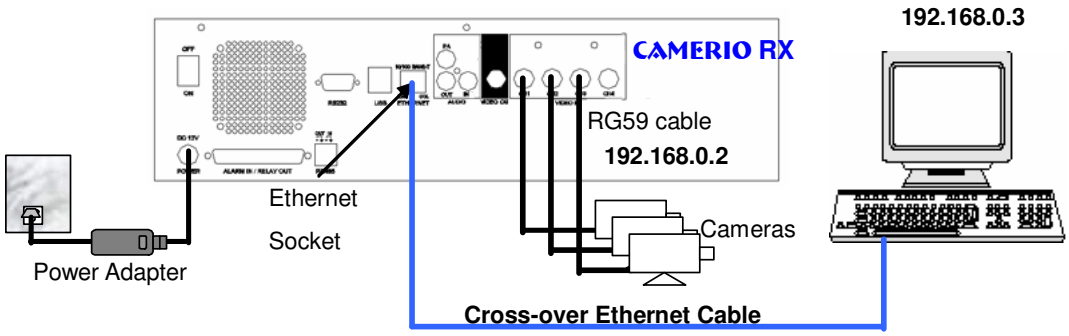
11.a.9 Set the Gateway value (for example) to **210.17.139.1**
Note: The DNS setting is optional which is useful for ***sure*****LINK**, *time synchronization or e-mail notification function.*

11.a.10 Press "**Live**" button and **[SETTING MODIFIED]** message board will pop up.

11.b Configure **CAMERIO RX** video recording server IP setting through PC



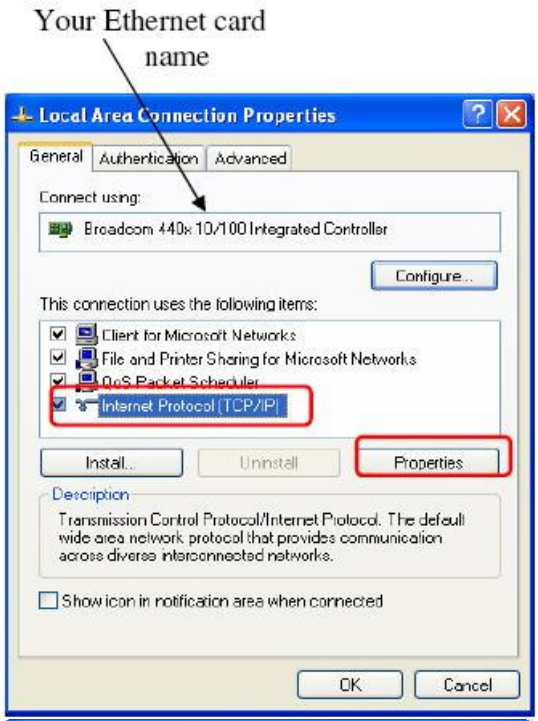
Basic Installation for Local and Remote Monitoring



11.b.1. In Windows 2000/XP desktop, select **Start > Control Panel**

11.b.2. Double click **Network and Dial-up Connections** > right click **Local Area Connections** and choose **Properties**.

11.b.3. Choose **Internet Protocol (TCP/IP)** and click **Properties**

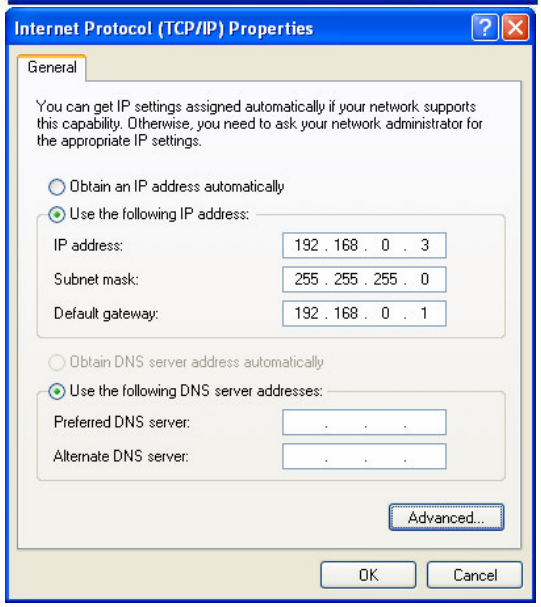


11.b.4. Enter an IP address, subnet mask and Default gateway. Note that IP address should be "192.168.0.xx" except "192.168.0.2" which is **CAMERIO RX** default IP address.

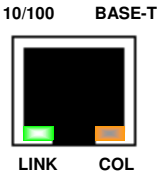
11.b.5. Enter the Preferred and Alternate DNS server, if necessary.

11.b.6. Click **OK** to activate the new IP.

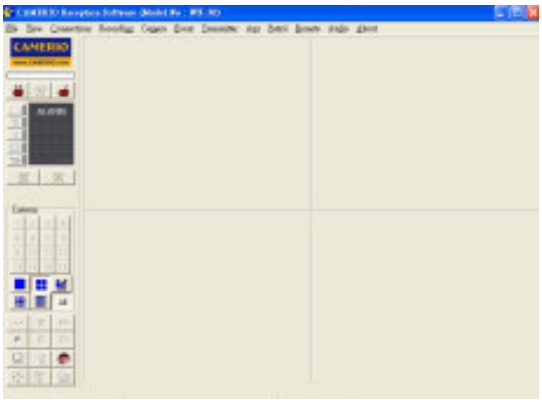
*Note: You have to confirm that IP address has been correctly set on your computer. On your windows, click **start > run**, type "cmd" at Open field and press **OK** button, then type "**ipconfig**" on the DOS prompt, you will see an IP set on your computer.*



11.b.7. Connect the PC Ethernet socket to the video recording server Ethernet socket at rear panel of the video recording server with **cross-over** Ethernet cable. Check if the **{LINK LED}** of the video recording server is **ON**.



11.b.8. Run WX-30 software which has been installed to the PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)

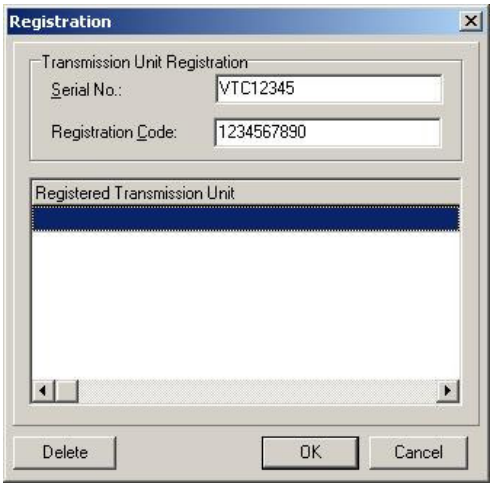


11.b.9. Choose **[Transmitter]** → **[Registration]** to register the **CAMERIO RX** video recording server. User needs to input video recording server serial number and registration code.

For example :

Serial No. : VTC12345

Registration Code : 1234567890



11.b.10. Press **[Connect]**  icon to pop up the **[Connect Window]**. Type and select the following setting :

For Broadband Connection :

Phone/IP : 192.168.0.2

Connect Using : TCP/IP Broadband

Password : 000000

OR

For Narrowband Connection :

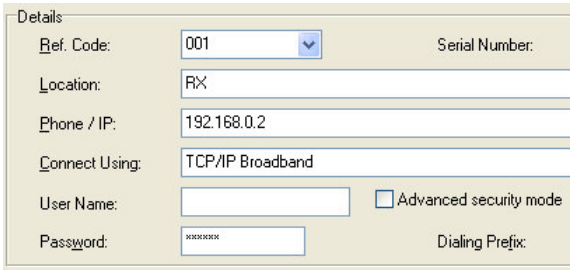
Phone/IP : 192.168.0.2

Connect Using : TCP/IP Narrowband

Password : 000000

IP (192.168.0.2) and **Password** (000000)

If RX is set to advanced security mode, check

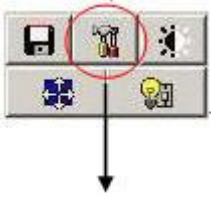


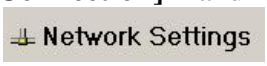
Advanced security mode box and enter **User Name**

11.b.11. Press **[Connect]** 

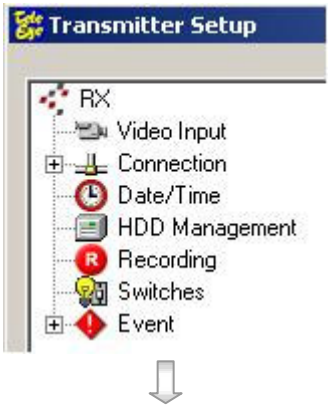
icon to connect your PC and the video recording server. The video appears on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and show you failure message. For failure case, please press **[Connect]**  icon to check that the connection setting is valid or not.

11.b.12. Press **[Transmitter setup]**  icon to show **CAMERIO RX** configuration menu.

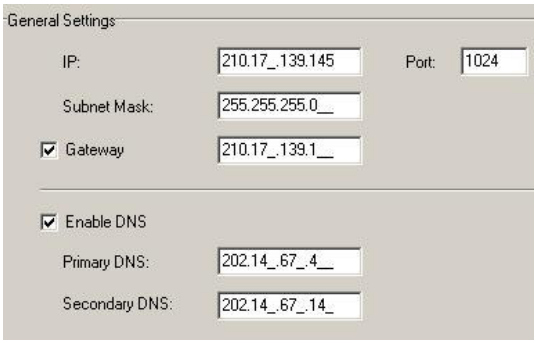


11.b.13. Select **[Connection]** and press **[Network Settings]** 

icon to configure network setting.

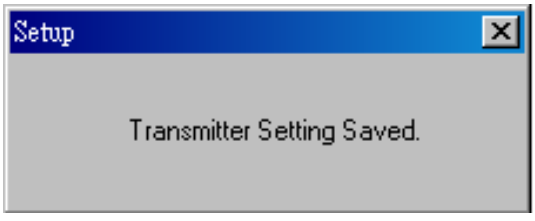


11.b.14. Change the IP from 192.168.0.2 to (for example) 210.17.139.145 and Gateway setting 210.17.139.1 (for example). Primary and Secondary DNS setting (for example) are used for ***sure*LINK**, time synchronization** or e-mail notification function **.



11.b.15. Press **[Apply]** 

icon to save the network setting and the message board will pop up. After several seconds, the video recording server will restart automatically.



Basic Installation for Local and Remote Monitoring

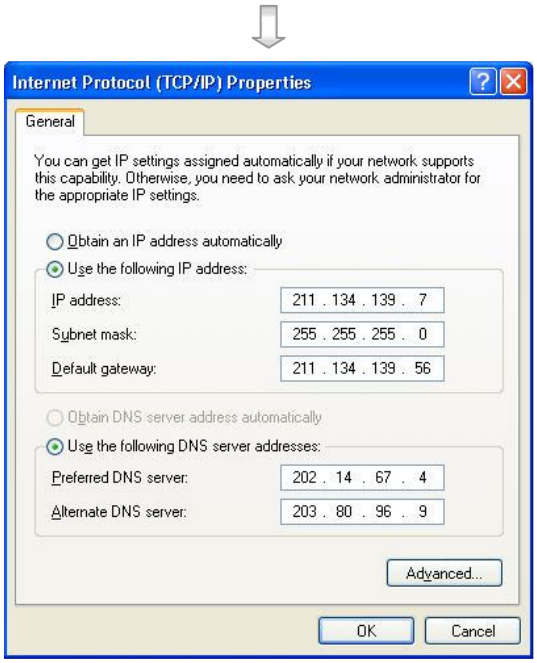
11.b.16. In Windows 2000/XP desktop, select **Start** > **Control Panel**

11.b.17. Double click **Network and Dial-up Connections** > right click **Local Area Connections** and choose **Properties**.

11.b.18. Choose **Internet Protocol (TCP/IP)** and click **Properties**

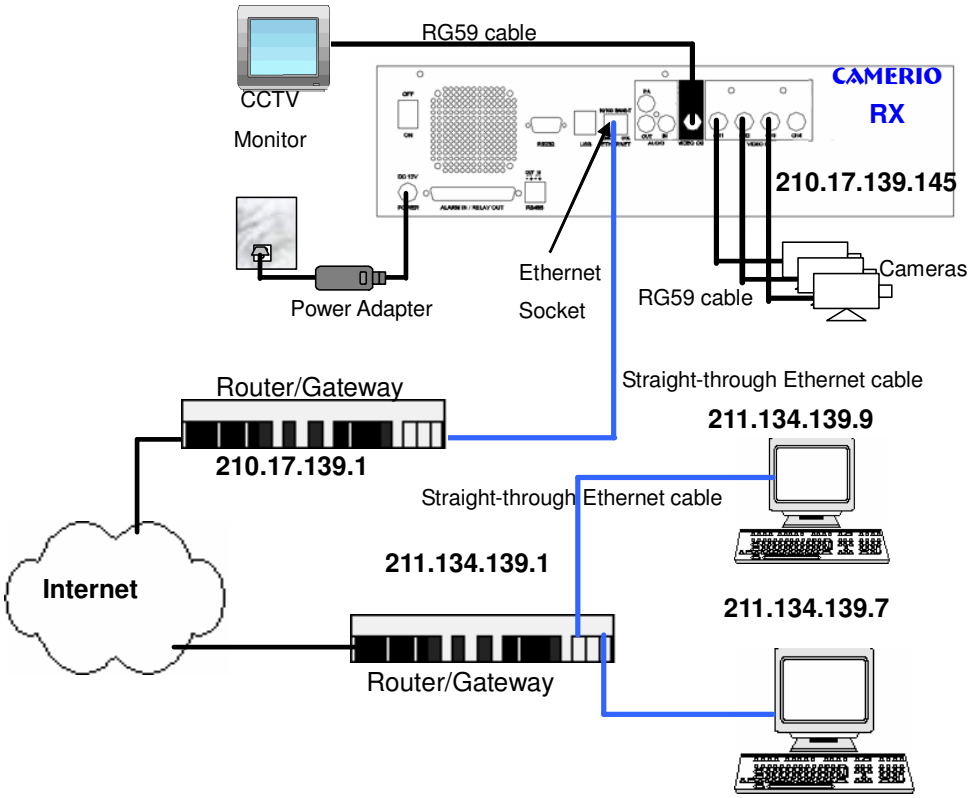
11.b.19. Enter the IP address, subnet mask and Default gateway for the PC to restore to its original network configuration.

11.b.20. Click **OK** to apply the setting



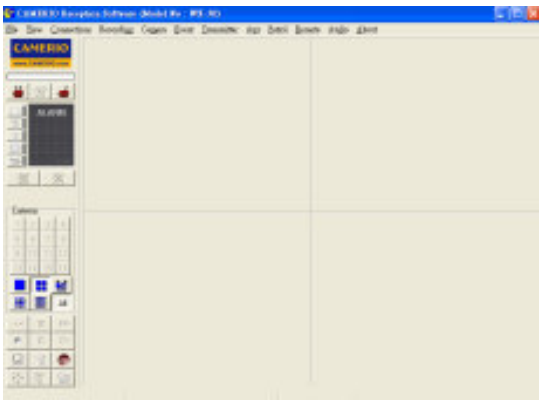
12. Disconnect the video recording server and current PC. Reconnect the video recording server and current PC to the Internet network through **straight-through Ethernet cable**.

13. Check Ethernet socket of both the video recording server and PC to ensure that the **{GREEN LINK LED}** turns ON. Then connection diagram is shown as follows:



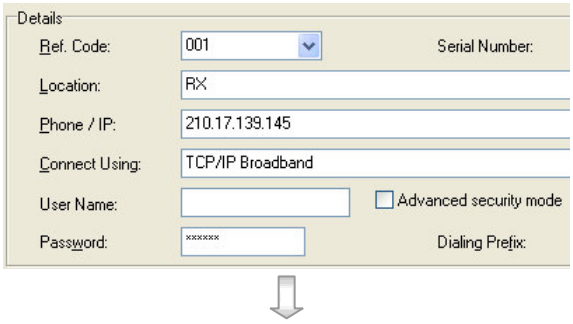
Basic Installation for Local and Remote Monitoring

14. Configure the network setting for **CAMERIO RX** video recording server and your PC if necessary, such as router/gateway port mapping (select router/gateway IP as IP provided by your ISP and the video recording server IP as IP provided by the router/gateway), firewall, etc. (Please refer to the manual of your router/gateway.)



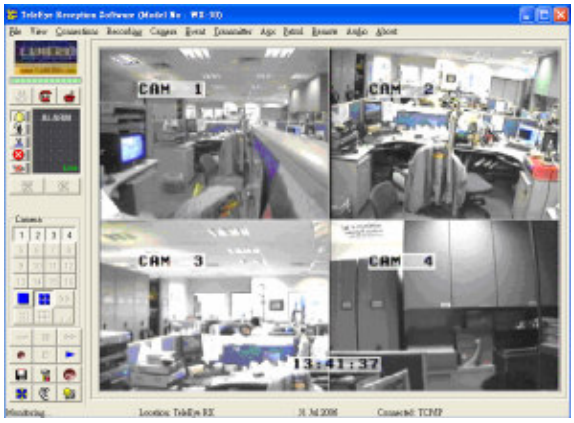
15. Run **WX-30** software at any network PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)

16. Press **[Connect]**  icon to pop up the **[Connect Window]**. For **example**, type and select the following setting :
Broadband Connection :
Phone/IP : 210.17.139.145
Connect Using : TCP/IP Broadband
Password : 000000
OR
Narrowband Connection :
Phone/IP : 210.17.139.145
Connect Using : TCP/IP Narrowband
Password : 000000
If RX is set to advanced security mode, check **Advanced security mode** box and enter **User Name**



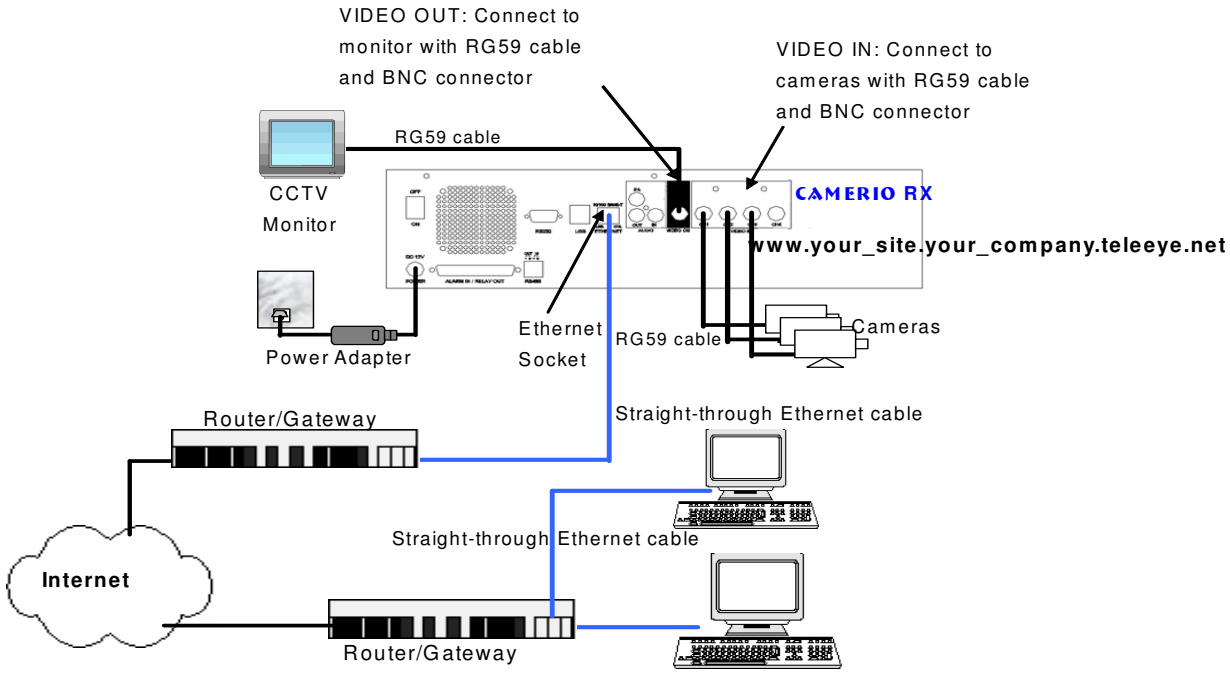
17. Press **[Connect]** 

icon to connect your PC and the video recording server. The video appears on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and the failure message will be shown. For failure case, please press **[Connect]**  icon to check that the connection setting is valid or not.



E. CAMERIO RX Setup for Broadband or Narrowband Internet Connection with Dynamic IP

Connection Topology



Remark for Internet Connection Definition

Broadband : Connection speed equals to 128kbps or above, e.g. ADSL, DSL.
Narrowband : Connection speed is below 128kbps, e.g. dial up network, GPRS

Equipment

- **CAMERIO RX** Video recording server
- Network Switch, Router/Gateway, ADSL Modem
- Straight-through Ethernet Cable (bundled), Cross-over Ethernet Cable
- Cameras, Video Cables (RG-59) with BNC Header, Monitor
- CD ROM with WX-30 Software (bundled) (for PC operation only)
- CCTV Monitor
- PC

PC Requirements

- **CPU** : Pentium IV 2.4 GHz or above
- **RAM** : 512 MB or above
- **Display** : 1024 x 768, true color or better
- **HDD** : 1 GB of free disk space or above
- **OS** : MS Windows 2000, XP

Basic Installation for Local and Remote Monitoring

Setup Procedure

1. Connect cameras to **CAMERIO RX** {Video Input} with RG59 cable and BNC connector.

   *Note: The camera system is either **NTSC** or **PAL** and all cameras must have the SAME system format.*

2. Connect CCTV monitor to **CAMERIO RX** {Video Output} with RG59 cable and BNC connector.
3. Install and use the bundled key to lock the {Hard Disk Rack} with Hard disk to the **CAMERIO RX**.

   Note: If there is no hard disk installed, Recording and Playback are not functional.

4. Connect the power adapter (12V DC) to the **CAMERIO RX**.

5. Turn on the power of **CAMERIO RX**, camera and monitor. Check the **{Power LED}**, which is lit up in blue color continuously at **CAMERIO RX** front panel after power on. After several seconds, live video appears on the CCTV monitor as follows:

Note: Please go through the following steps (6-10) if the video of CCTV monitor does not show clearly.

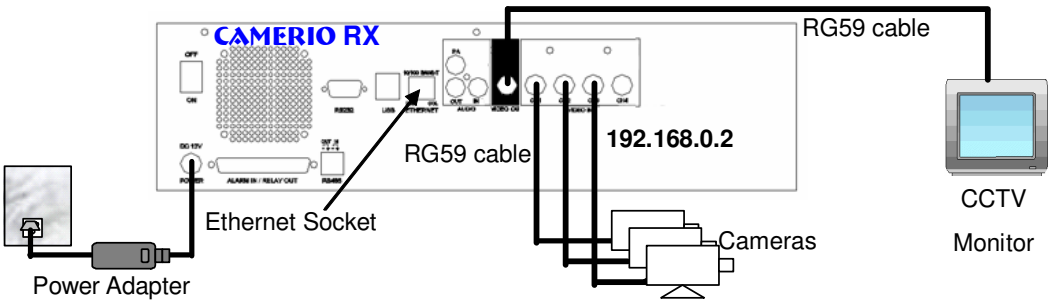
Basic Installation for Local and Remote Monitoring

6. Press the "**Menu**" button to pop up the **[MAIN MENU]** on OSD.
7. Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button to enter the **[SETUP]** sub-menu.
8. Select **[VIDEO]** option and press "**Enter**" button
9. Select **[VIDEO FORMAT]** and press "**Left**" or "**Right**" button to set either **[NTSC]** or **[PAL]** option. (All cameras should have the same video format).
10. You can always press "**Live**" button to exit any menu operation and start live monitoring.

Setup **CAMERIO RX** video recording server IP through CCTV monitor, please go to step 11a.

Setup **CAMERIO RX** video recording server IP through PC, please go to step 11b.

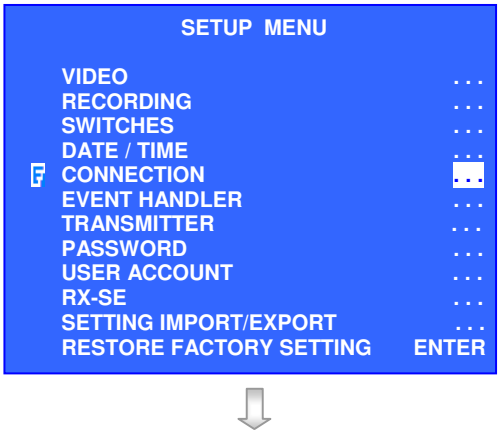
11.a Configure **CAMERIO RX** video recording server IP setting through CCTV Monitor



11.a.1 Press the "**Menu**" button such that the OSD main menu pops up on the monitor.

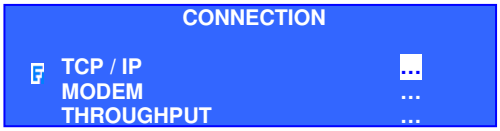
11.a.2 Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button.

11.a.3 Select **[CONNECTION]** option and press "**Enter**" button

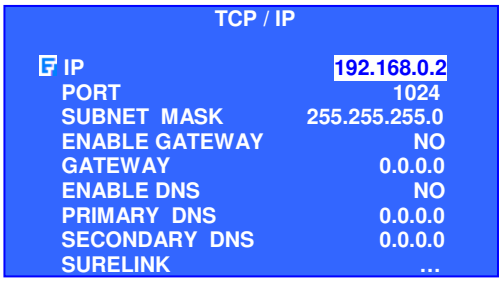


Basic Installation for Local and Remote Monitoring

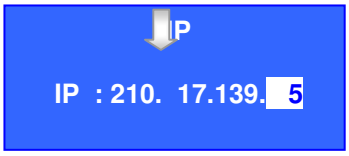
11.a.4 Select **[TCP/IP]** option and press "**Enter**" Enter button



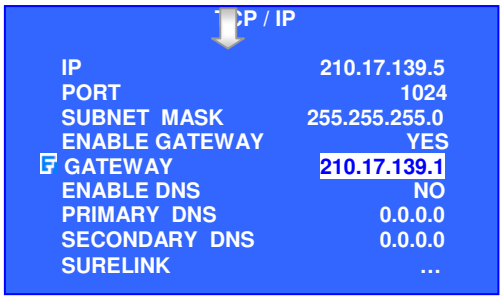
11.a.5 Select **[IP]** option and press "**Enter**" Enter button. IP address consists of four fields. Each field can assign a number from **0** to **255**.



11.a.6 Use "**Left**" or "**Right**" button to select field and use "**Up**" or "**Down**" button to set number. Set IP address (for example) to 210.17.139.5



11.a.7 Press "**Enter**" Enter button to save the change and return previous menu.



11.a.8 Follow the network setting and assign valid subnet mask to **[SUBNET MASK]** and select **[ENABLE GATEWAY]** option and input **[GATEWAY]** option in similar way. Assign the Gateway (for example) to 210.17.139.1

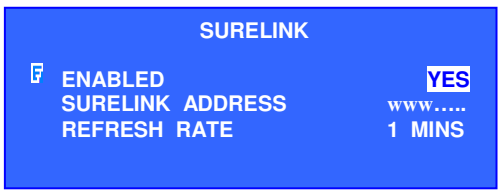
11.a.9 Select **[ENABLE DNS]** option Use "**Left**" or "**Right**" button to select **[YES]** to enable DNS.

11.a.10 Assign the Primary DNS (for example) to 202.14.67.4

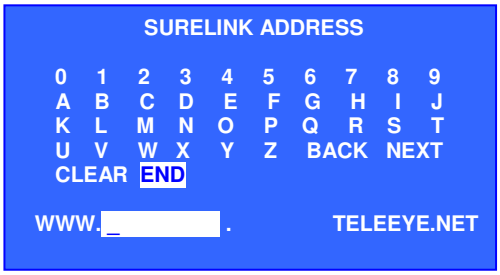
11.a.11 Assign the Secondary DNS (for example) to 202.14.67.14

11.a.12 Select **[SURELINK]** option from TCP/IP menu and press "**Enter**" Enter button to enter the sub menu.

11.a.13 Select **[ENABLED]** option and press "**Left**" or "**Right**" button to set **[YES]** value



11.a.14 Select **[SURELINK ADDRESS]** option and press "**Enter**" Enter button to ***sure*LINK** editing menu.



There are two fields for assigning ***sure*LINK** address "www.**your_site**.**your_company**.TeleEye.net"

11.a.15 Use "**Up**" or "**Down**" or "**Left**" or "**Right**" button to select values and use "**Enter**" button to assign value.

11.a.16 **[BACK]**→ back to previous value or field

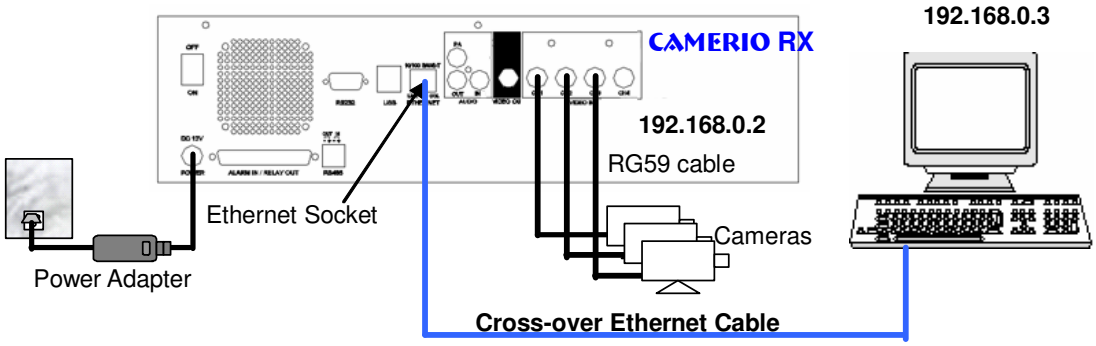
11.a.17 **[NEXT]**→ next to field

11.a.18 **[CLEAR]** → clear field

11.a.19 **[END]** → finish to assign ***sure*LINK** address and exit the editing menu.

11.a.20 Press "**Live**" Live button and **[SETTING MODIFIED]** message board will pop up. Press "**Enter**" Enter button to restart the video recording server.

11b Configure **CAMERIO RX** video recording server IP setting through PC

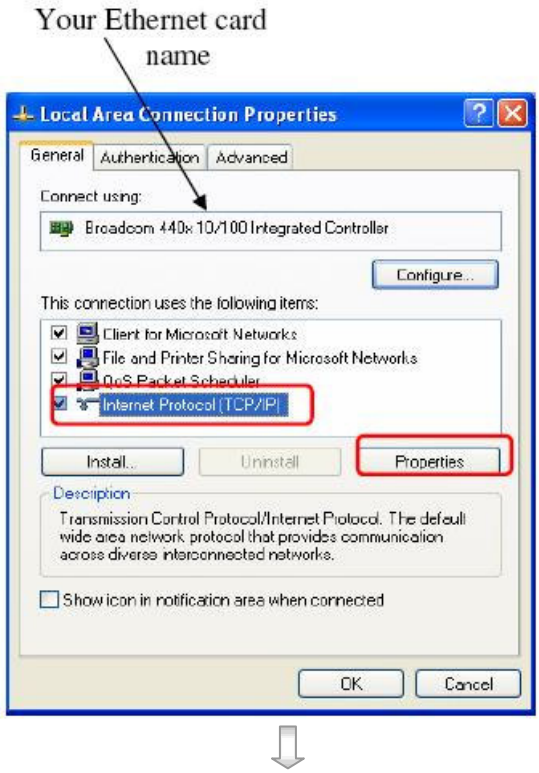


Basic Installation for Local and Remote Monitoring

11.b.1. In Windows 2000/XP desktop, select **Start > Control Panel**

11.b.2. Double click **Network and Dial-up Connections >** right click **Local Area Connections** and choose **Properties**.

11.b.3. Choose **Internet Protocol (TCP/IP)** and click **Properties**



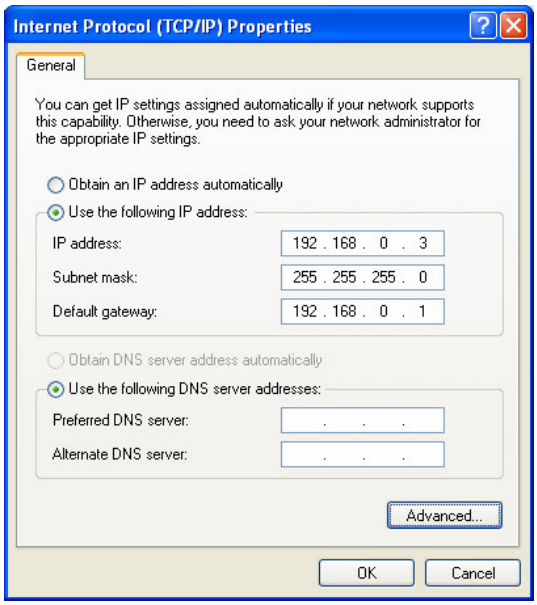
11.b.4. Enter an IP address, subnet mask and Default gateway.

Note: IP address should be "192.168.0.xx" except "192.168.0.2" which is **CAMERIO RX** *default IP address.*

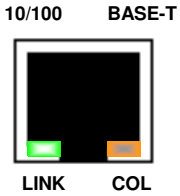
11.b.5. Enter the Preferred and Alternate DNS server, if necessary.

11.b.6. Click **OK** to activate the new IP.

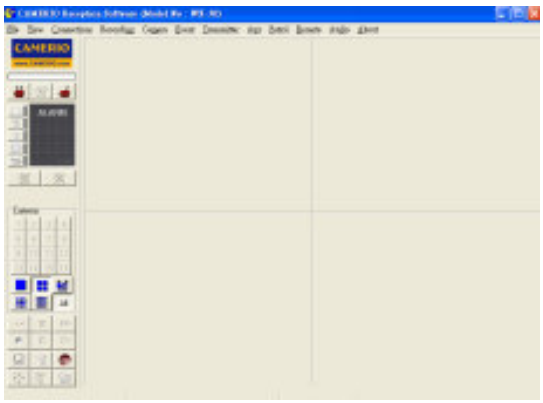
You have to confirm that IP address has been correctly set on your computer. On your windows, click **start > run**, type "**cmd**" at Open field and press **OK** button, then type "**ipconfig**" on the DOS prompt, you will see an IP set on your computer.



11.b.7. Connect the PC Ethernet socket to the video recording server Ethernet socket at rear panel of the video recording server with **cross-over** Ethernet cable. Check if the **{LINK LED}** of the video recording server is **ON**.



11.b.8. Run WX-30 software which has been installed to the PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)

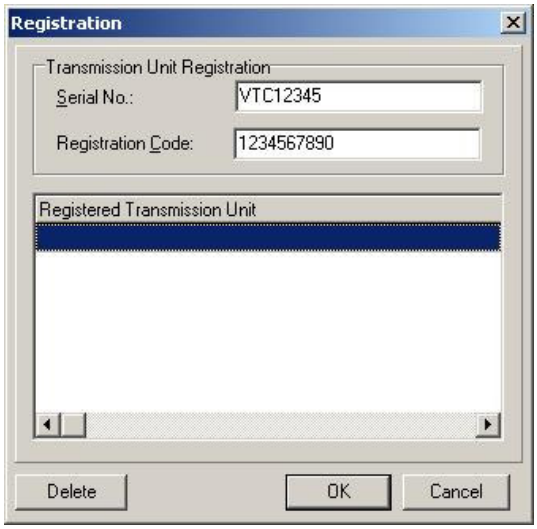


11.b.9. Choose **[Transmitter]** → **[Registration]** to register the **CAMERIO RX** video recording server. User needs to input video recording server serial number and registration code.

For example :

Serial No. : VTC12345

Registration Code : 1234567890



11.b.10. Press **[Connect]**  icon to pop up the **[Connect Window]**. Type and select the following setting :

Broadband Connection :

Phone/IP : 192.168.0.2

Connect Using : TCP/IP Broadband

Password : 000000

OR

Narrowband Connection :

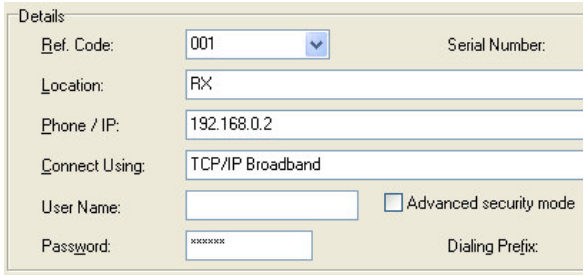
Phone/IP : 192.168.0.2

Connect Using : TCP/IP Narrowband

Password : 000000

IP (192.168.0.2) and **Password** (000000) are default setting of **CAMERIO RX**

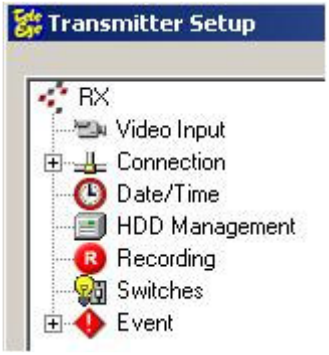
If RX is set to advanced security mode, check **Advanced security mode** box and enter **User Name**



11.b.11. Press **[Connect]** Connect icon to connect your PC and the video recording server. The video appears on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and show you failure message. For failure case, please press **[Connect]** icon to check that the connection setting is valid or not.

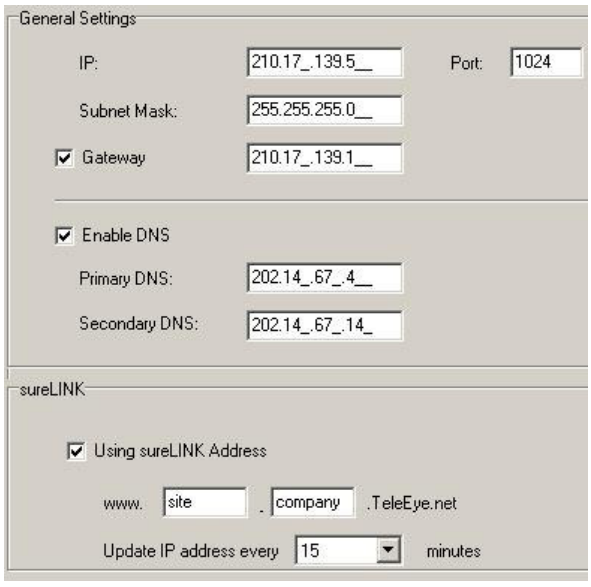
11.b.12. Press **[Transmitter Setup]** icon to show **CAMERIO RX** configuration menu.

11.b.13. Select **[Connection]** and press **[Network Settings]** Network Settings icon to configure network setting.



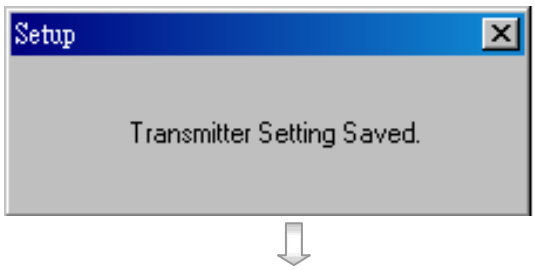
11.b.14. For example :
Assign 210.17.139.5 to IP
Assign 210.17.139.1 to Gateway
Assign 202.14.67.4 to Primary DNS
Assign 202.14.67.14 to Secondary DNS
Enable ***sure*LINK**
Assign
"**www.your_site.your_company.TeleEye.net**"

Note: The above network setting is an example. Please consult you network administrator to get your network setting information



11.b.15. Press **[Apply]** 

icon to save the network setting and pop up the message board. After several seconds, the video recording server will restart automatically.



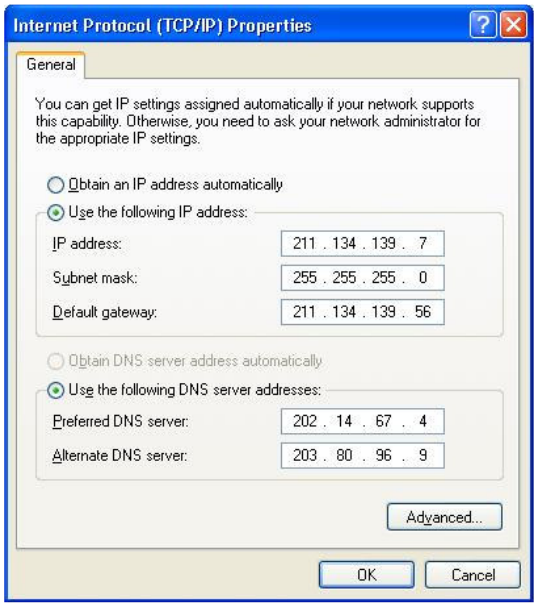
11.b.16. In Windows 2000/XP desktop, select **Start > Control Panel**

11.b.17. Double click **Network and Dial-up Connections** > right click **Local Area Connections** and choose **Properties**.

11.b.18. Choose **Internet Protocol (TCP/IP)** and click **Properties**

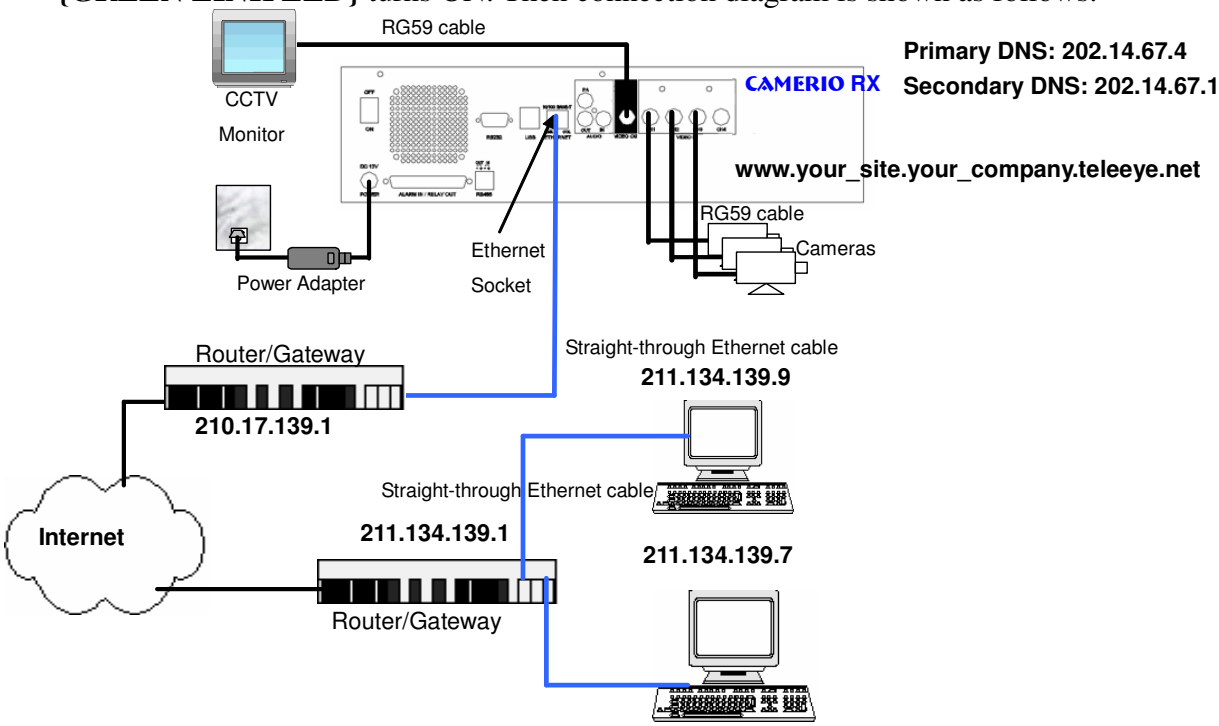
11.b.19. Enter the **IP** address, subnet mask and Default gateway for the PC to restore to its original network configuration.

11.b.20. Click **OK** to apply the setting



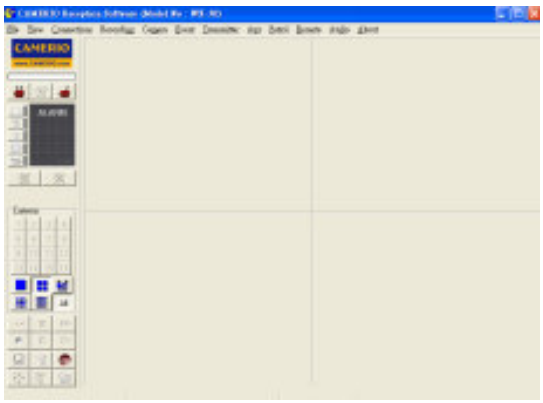
12. Disconnect the video recording server and current PC. Reconnect the video recording server and current PC to the Internet network through **straight-through Ethernet cable**.

13. Check Ethernet socket of both the video recording server and PC to ensure that the **{GREEN LINK LED}** turns ON. Then connection diagram is shown as follows:



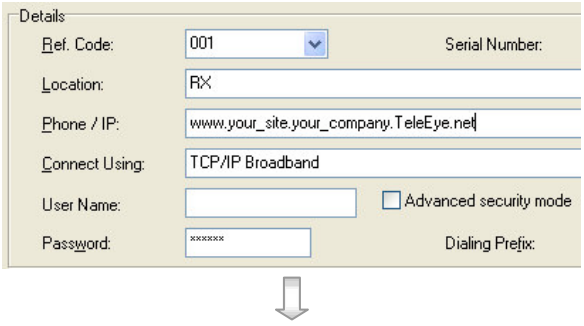
Basic Installation for Local and Remote Monitoring

14. Configure the network setting for **CAMERIO RX** video recording server and your PC if necessary, such as router/gateway port mapping (select router/gateway IP as IP provided by your ISP and the video recording server IP as IP provided by the router/gateway), firewall, etc. (Please refers to the manual of your router/gateway.)



15. Run **WX-30** software at any network PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)

16. Press **[Connect]**  icon to pop up the **[Connect Window]**. For **example**, type and select the following setting :



Broadband Connection :
Phone/IP :
www.your_site.your_company.TeleEye.net
Connect Using : TCP/IP Broadband
Password : 000000
OR
Narrowband Connection :
Phone/IP :
www.your_site.your_company.TeleEye.net
Connect Using : TCP/IP Narrowband
Password : 000000

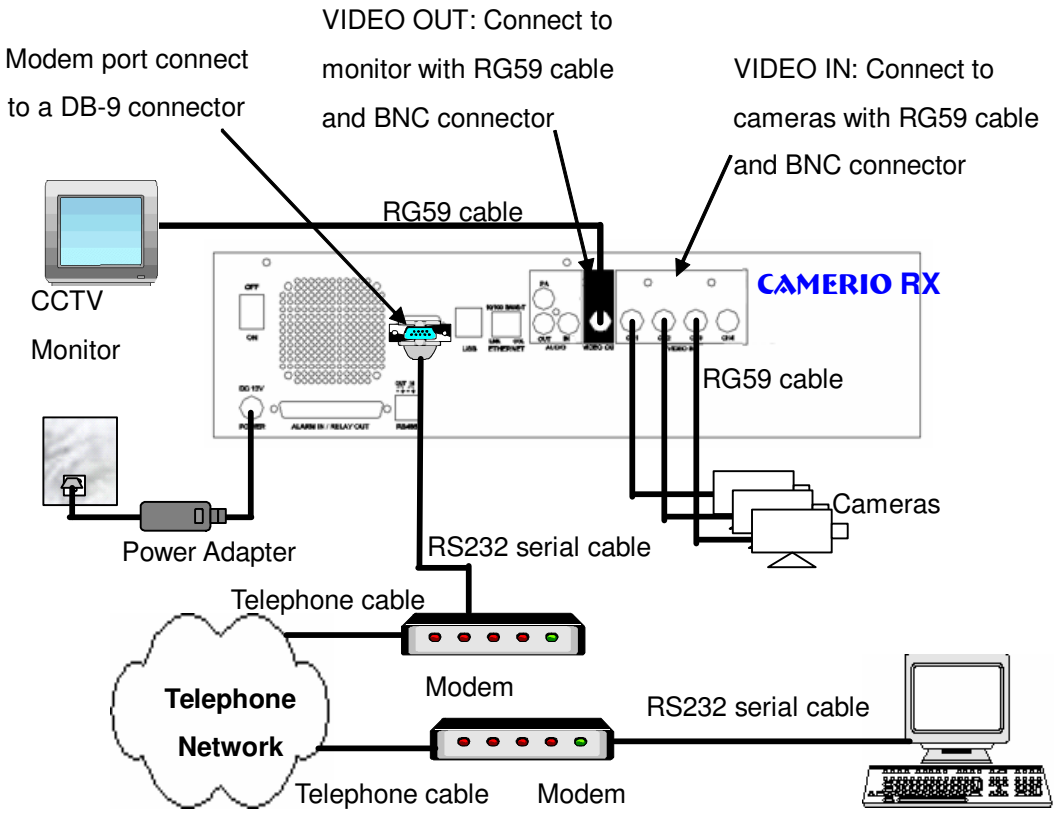
If RX is set to advanced security mode, check **Advanced security mode** box and enter **User Name**

17. Press **[Connect]** 

icon to connect your PC and the video recording server. The video appears on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and the failure message will be shown. For failure case, please press **[Connect]**  icon to check that the connection setting is valid or not.

F. CAMERIO RX Setup for Modem Connection

Connection Topology



Equipment

- **CAMERIO RX** Video recording server
- ISDN/PSTN Modem
- RS232 Serial Cable
- Telephone Cable
- Cameras
- Video Cables (RG-59) with BNC Header
- CCTV Monitor
- CD ROM with WX-30 Software (bundled) (for PC operation only)
- PC

PC Requirements

- **CPU** : Pentium IV 2G Hz or above
- **RAM** : 256 MB or above
- **Display** : 800x600, hi-color or better
- **OS** : MS Windows 2000, XP

Basic Installation for Local and Remote Monitoring

Setup Procedure

1. Connect cameras to **CAMERIO RX {Video Input}** with RG59 cable and BNC connector.

   *Note: The camera system is either **NTSC** or **PAL** and all cameras must have the SAME system format.*

2. Connect CCTV monitor to **CAMERIO RX {Video Output}** with RG59 cable and BNC connector.

3. Install and use the bundled key to lock the **{Hard Disk Rack}** with hard disk to the **CAMERIO RX**.

   Note: If there is no hard disk installed, Recording or Playback is not functional during live video monitoring.

4. Connect the power adapter (12V DC) to the **CAMERIO RX**.

5. Turn on the power of **CAMERIO RX**, camera and monitor. Check the **{Power LED}**  , which is lit up in blue color continuously at **CAMERIO RX** front panel after power on. After several seconds, live video appears on the CCTV monitor as follows:

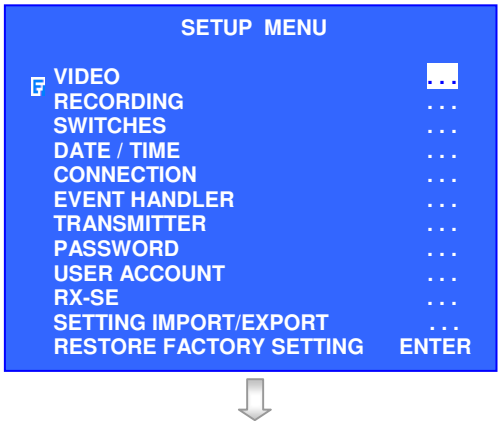
Note: Please go through the following steps (6-10) if the video of CCTV monitor does not show clearly.

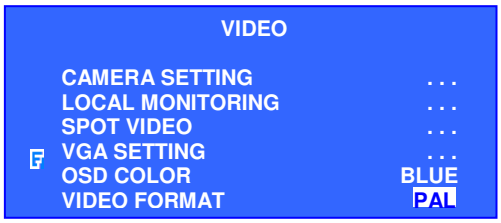
Basic Installation for Local and Remote Monitoring

6. Press the "**Menu**" button to pop up the **[MAIN MENU]** on OSD.

7. Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button to enter the **[SETUP]** sub-menu.

8. Select **[VIDEO]** option and press "**Enter**" button



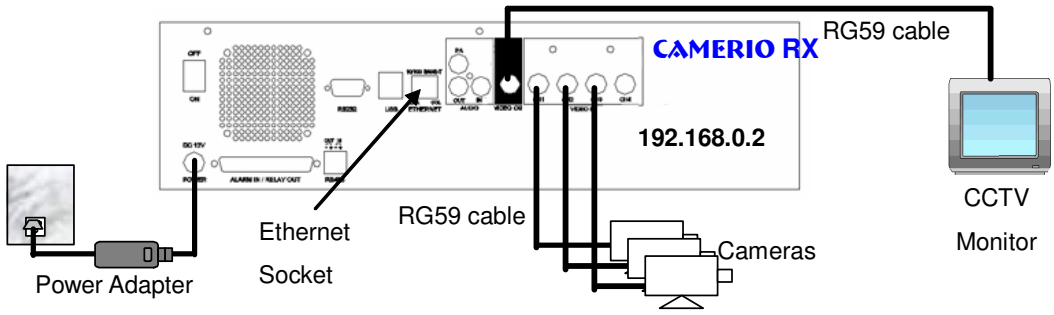


9. Select **[VIDEO FORMAT]** and press "**Left**" or "**Right**" button to set either **[NTSC]** or **[PAL]** option. (All cameras should have the same video format).

10. You can always press "**Live**" button to exit any menu operation and start live monitoring.

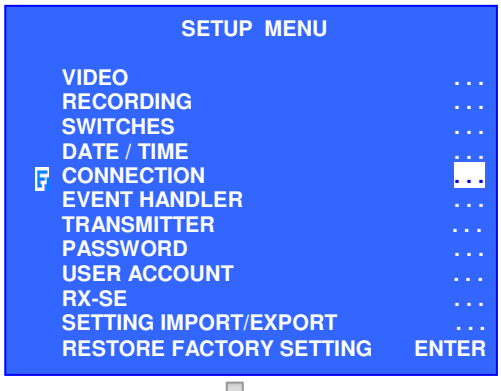
Setup **CAMERIO RX** video recording server IP through CCTV monitor, please go to step 11a.
Setup **CAMERIO RX** video recording server IP through PC, please go to step11b.

11a: Configure **CAMERIO RX** video recording server modem connection setting through CCTV Monitor



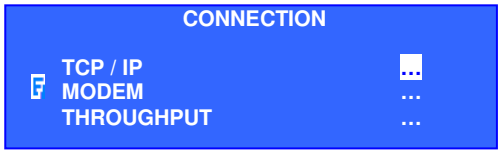
11.a.1. Press the "**Menu**" button such that the OSD **[MAIN MENU]** pop up on the monitor.

11.a.2. Use "**Up**" or "**Down**" button to select **[SETUP]** option and press "**Enter**" button and select **[CONNECTION]** option and press "**Enter**" button.



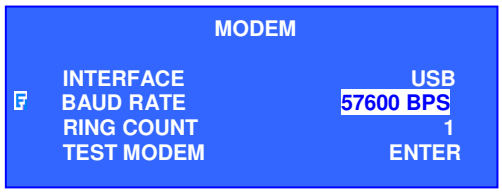
Basic Installation for Local and Remote Monitoring

11.a.3. Use "**Up**" or "**Down**" button to select **[MODEM]** option and press "**Enter**" Enter button

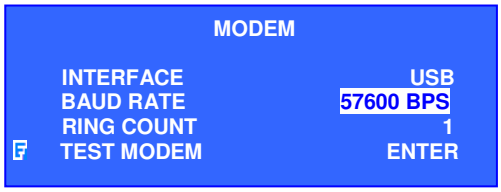


11.a.4. Select **[BAUD RATE]** and then **[RING COUNT]** option press "**Enter**" Enter button

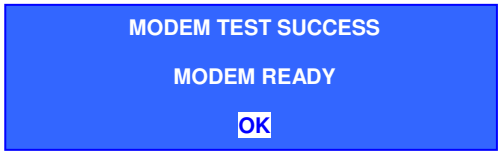
11.a.5. Use "**Up**" or "**Down**" button to set number. Press "**Enter**" Enter button to input baud rate and ring count setting



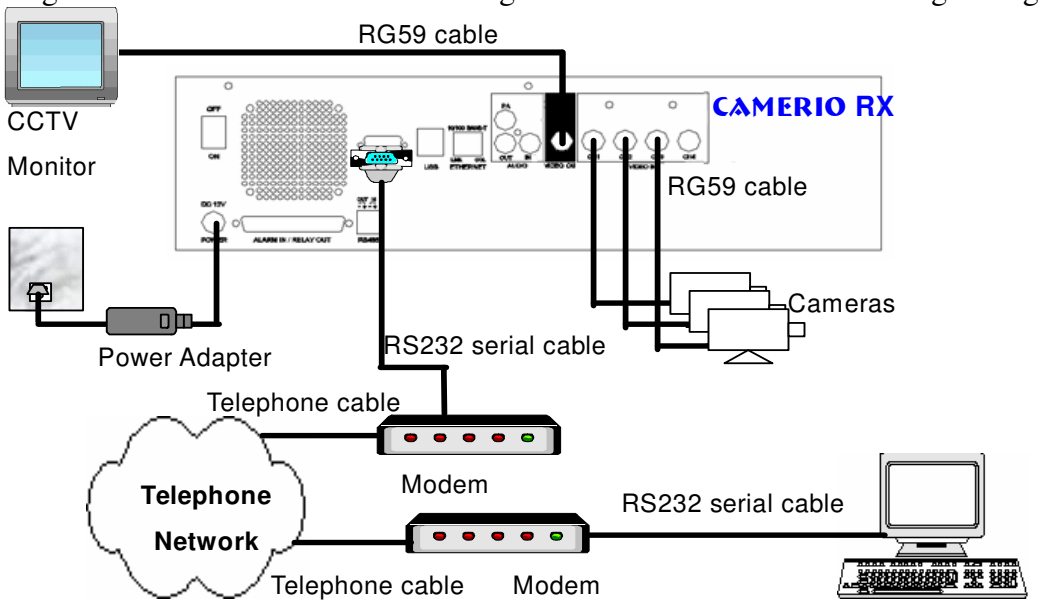
11.a.6. Select **[TEST MODEM]** and press "**Enter**" Enter button.



11.a.7. Press **[OK]** and back to modem sub-menu. Make sure the modem is connected and restart the modem if the modem is not ready.



11.b: Configure **CAMERIO RX** video recording server modem connection setting through PC



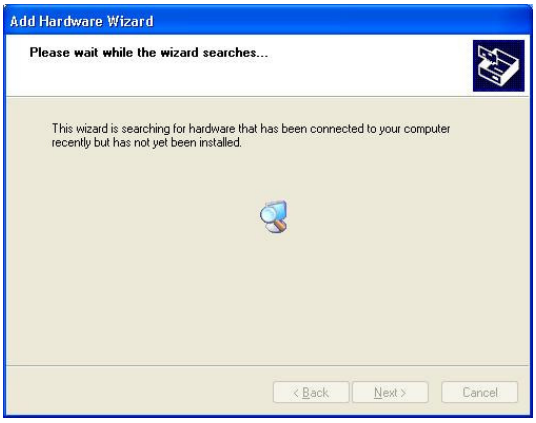
Basic Installation for Local and Remote Monitoring

Modem Setup for Windows 2000/XP of PC

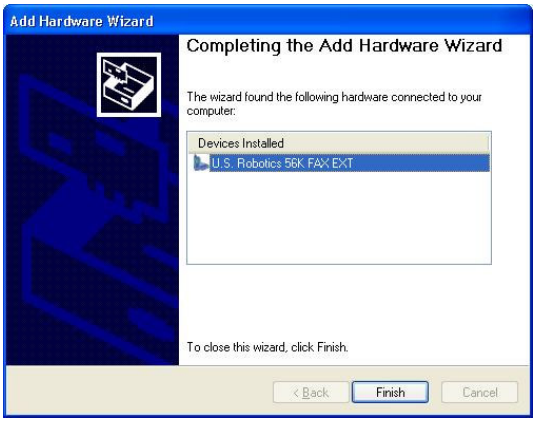
11.b.1. In Windows 2000/XP desktop, select **Start > Control Panel**

11.b.2. Double click Add Hardware, press **Next**, to search the modem connected to the PC automatically

11.b.3. Windows 2000/XP can search the modem device automatically. If there is any problem in modem installation, please refer to the modem manual.

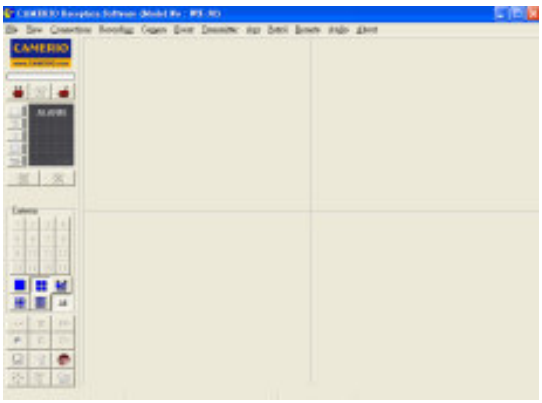


11.b.4. After searching the modem, Windows 2000/XP can install the modem driver automatically. Press **[Finish]** button to exit the menu. The modem is ready to use.

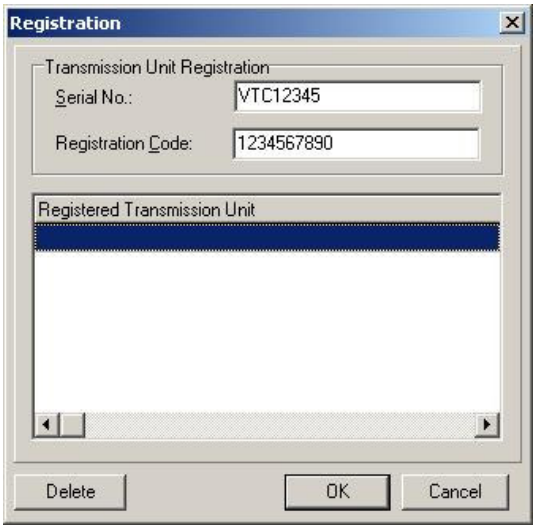


Basic Installation for Local and Remote Monitoring

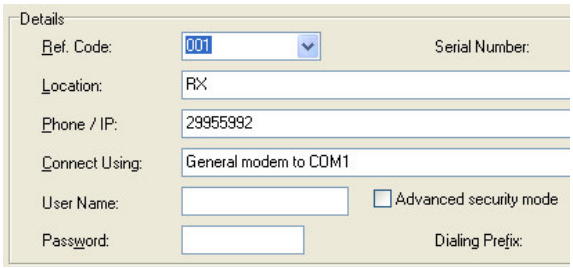
11.b.5. Run WX-30 software which has been installed to the PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)



11.b.6. Choose **[Transmitter]** → **[Registration]** to register the **CAMERIO RX** video recording server. User is required to input video recording server serial number and registration code.
For example :
Serial No. : VTC12345
Registration Code : 1234567890



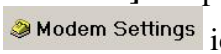
11.b.7. Press **[Connect]**  icon to pop up the **[Connect Window]**. For example, type and select the following setting :
Phone/IP :
29955992 (Phone number of the video recording server)
Connect Using :
General modem to COM1
(Modem Driver)
Password: 000000
If RX is set to advanced security mode, check **Advanced security mode** box and enter **User Name**



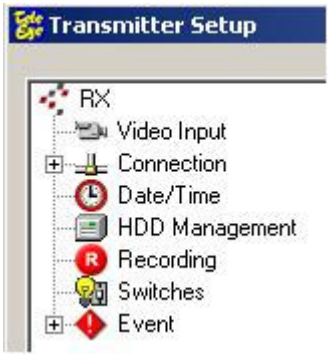
11.b.8. Press **[Connect]** 

icon to connect your PC and the video recording server. The video appears on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and show you failure message. For failure case, please press **[Connect]**  icon to check that the connection setting is valid or not.

11.b.9. Press **[Transmitter setup]**  icon to show **CAMERIO RX** configuration menu.

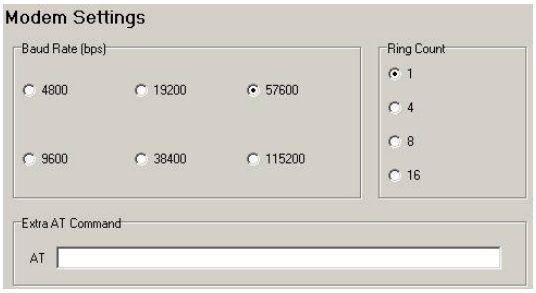
11.b.10. Select **[Connection]** and press **[Modem Settings]** 

icon to configure network setting.



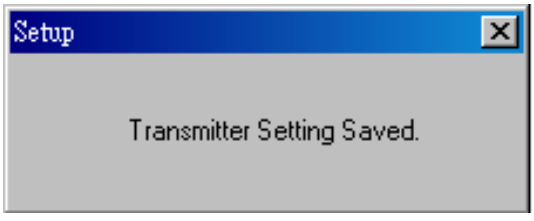
11.b.11. Assign modem baud rate in order to adjust modem connection speed.

11.b.12. Assign ring count, so modem can connect to the video recording server after that ring count.



11.b.13. Press **[Apply]** 

icon to save the network setting and the message board will pop up. After several seconds, the video recording server will restart automatically.



12. If user setup modem connection by using local CCTV monitor (Step 11a), please install the modem for your PC and connect to the telephone network in order to connect to **CAMERIO RX** video recording server

Basic Installation for Local and Remote Monitoring

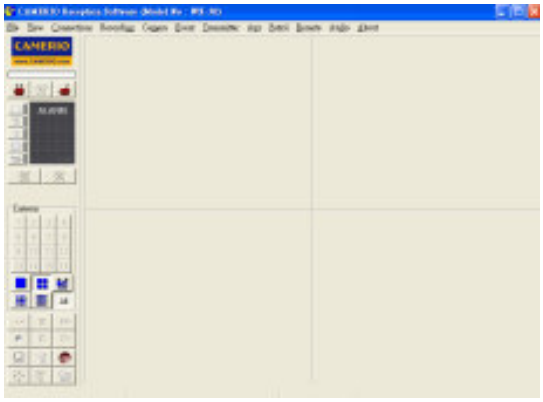
12.1 In Windows 2000/XP desktop, select **Start > Control Panel**

12.2 Double click Add Hardware, press **Next**, to search the modem connected to the PC automatically

12.3 Windows 2000/XP can search the modem device automatically. If there is any problem in modem installation, please refer to the modem manual.

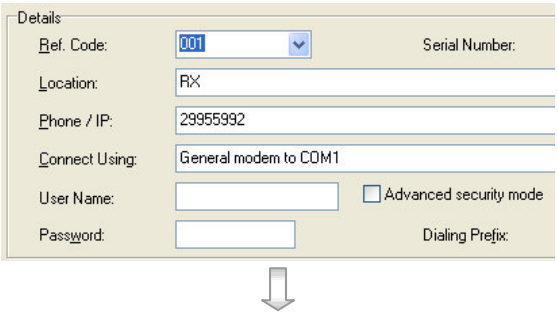
12.4 After searching the modem, Windows 2000/XP can install the modem driver automatically. Press **[Finish]** button to exit the menu. The modem is ready to use.

12.5 Run WX-30 software which has been installed to the PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)



12.6 Press **[Connect]**  icon to pop up the **[Connect Window]**. For example, type and select the following setting :

Phone/IP :
29955992 (Phone number of the video recording server)
Connect Using :
General modem to COM1
(Modem Driver)
Password: 000000
If RX is set to advanced security mode, check **Advanced security mode** box and enter **User Name**



12.7 Press **[Connect]** 

icon to connect your PC and the video recording server. The video appears on the WX-30 if success. Otherwise, the **[Warning]** board will pop up and show you failure message. For failure case, please press **[Connect]**  icon to check that the connection setting is valid or not.

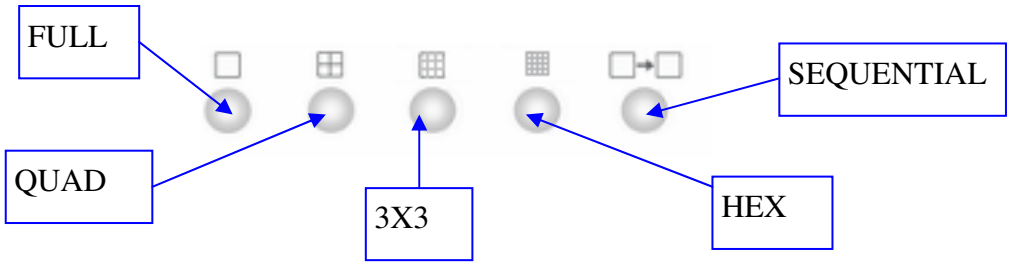
SECTION 4

Basic Operation for Local and Remote Monitoring

A. Local CCTV Monitor : Live Monitoring, Recording and Playback

1. Live Monitoring

Press "**Screen Control**" buttons to view the live video in full, quad, 3 x 3 (RX368_V2/3616_V2 only), hex (RX3616_V2 only) and sequential display mode.



- for **RX364**, FULL, QUAD and SEQUENTIAL buttons are available
- for **RX368_V2**, FULL, QUAD, 3X3 and SEQUENTIAL buttons are available
- for **RX3616_V2**, FULL, QUAD, 3X3, HEX and SEQUENTIAL buttons are available

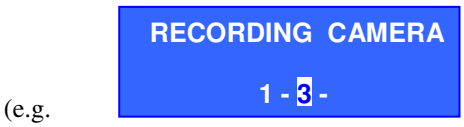
Press "**Live Camera Control**" buttons to fast switch to a specific camera for local monitoring

- for **RX364**, buttons 1-4 are available
- for **RX368_V2**, buttons 1-8 are available
- for **RX3616_V2**, buttons 1-16 are available

2. Recording

1. Press "**Rec**" button and **[RECORDING]** menu will pop up.
2. Select **[REC CAMERA]** option and press "**Enter**" button to enable recording cameras.

3. Use "**Left**" or "**Right**" button to select the recording camera and use "**Up**" or "**Down**" button to enable or disable the recording camera.



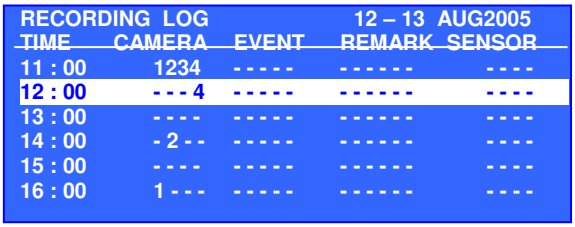
(e.g. Cam 1 & 3 are enabled, Cam 2 & 4 are disabled)

4. Step 4: After setting the recording cameras, press "**Enter**" button to save the setting and back to **[RECORDING]** menu.

5. Select **[START RECORDING]** option and press "**Enter**" button for recording. The **{Rec LED}** will be turned ON (RED Color) which indicates that recording is processing.
6. Press "**Rec**" button again to stop recording function and the **{REC LED}** will be turned OFF.

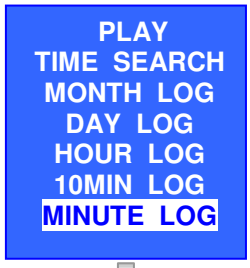
Playback

1. Press "**Search**" Search button to pop up **[RECORDING LOG]** board on OSD.



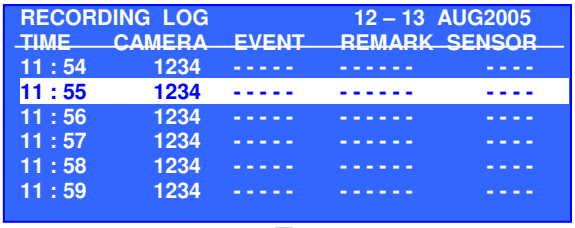
2. Press "**Play/Enter**" Enter button to show **[PLAY]** menu.

3. Select **[MINUTE LOG]** and press "**Enter**" Enter button.



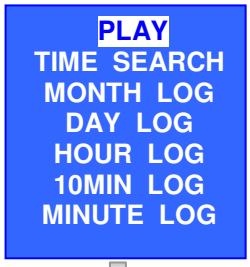
[RECORDING LOG] board will show the log in minute scale.

4. Select a record and press "**Enter**" Enter button for playback.



Then **[PLAYBACK]** menu will pop up again.

5. Select **[PLAY]** option and press "**Enter**" Enter button again for playback.



6. Using "**Playback Control button**" for

	Play
	Pause
	Rewind
	Forward
	Fast forward
	Step forward
	Step backward

These icons will shown on OSD for playback status

7. Press "**screen control**" or "**camera control**" 1 2 3 4 buttons to change the view mode in local CCTV video playback.

B. CAMERIO RX Reception Software WX-30 : Live Monitoring, Recording and Playback

1. Live Monitoring

User can view a particular camera by simply clicking the camera button (e.g. 1, 2, 3) on the camera control panel, to view all cameras, click **[All]** 

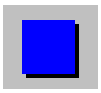
button.

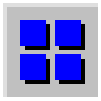
Screen views in Full screen

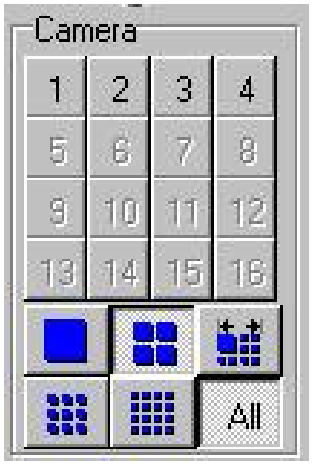
Screen views in Quarter screen

Screen views in Hex screen

Auto-arrange is to optimize the screen views in order to display as many high-resolution pictures as possible.

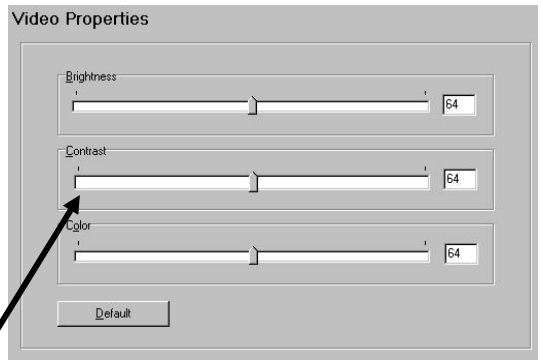




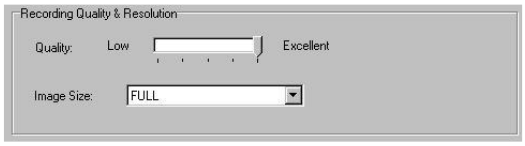


User can change **CAMERIO RX** Reception Software WX-30 live monitoring picture quality by following steps.

1. Click **[Transmitter Settings]**  button at the software front panel.
2. Enter the **administrator password** to proceed.
3. A video recording server settings menu will pop up.
4. Choose video properties under **[video input]** to change the **brightness**, **contrast** and **color** level.

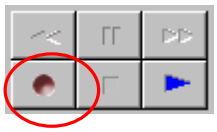


5. Select in **[Recording]** to change the recording quality and resolution.

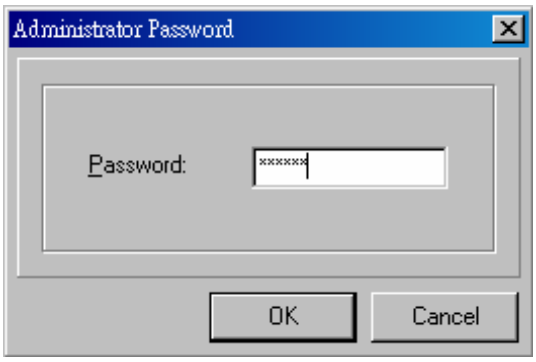


2. Recording

1. Press **[Record]**  icon to setup recording setting.

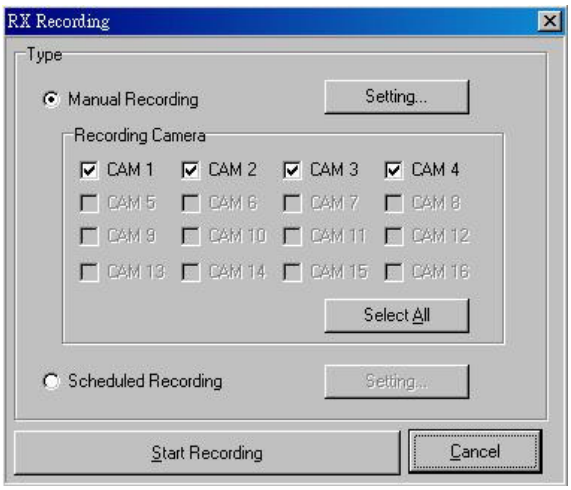


2. Input administrator password (**000000** as default password) and press **[OK]** button.



3. Enable recording cameras (Tick  for enable, blank for disable)

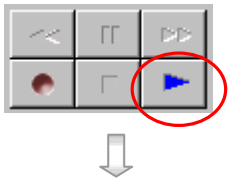
4. Press **[Start Recording]**  button to start recording



Recording function is running 

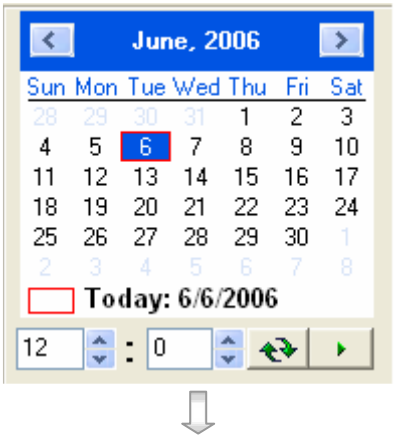
3. Playback

1. Press **[Play]** button to show playback menu



2. Select and input the record date and time for searching and press **[Reload]** button.

3. Select a **time slot record** and press **[Start Playback]** button.



4. Use "**playback control button**" to control playback video such as "**play**", "**pause**", "**forward**", "**backward**" and "**stop**" function.

5. Press **[All]** **, [Full screen]** , **[Quarter screen]** , **[3X3 screen]** , **[Hex screen]** or **[Auto-arrange]** icon to change the view mode for playback.

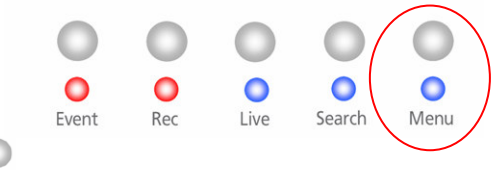
*Note: After pressing "**pause**" button for 1 minute, reception software WX-30 will continue to playback the video automatically.*

Note: If user record video by using quad recording mode, the playback video quality may not be good as in full screen display mode.

SECTION 5

OSD Menu Operation

A. How to use OSD menu



1. Press the "**Menu**" Menu button to open the main menu
2. Use the "**Up**" / "**Down**" button to select a sub-menu
3. A selected sub-menu option will be pointed by a hand cursor and highlighted
4. Press "**Enter**" Enter button to confirm the selection and open the sub-menu
5. If menu option ends with **[. . .]** indicates sub-menu existing, you can always press the "**Enter**" Enter button to open the sub-menu.
6. If menu option does not end with **[. . .]** but provides selection, user can press the "**Left**" / "**Right**" button to select the options.
7. You can press the "**Back**" Back button once back to previous menu.
8. Press "**Live**" Live button or "**Back**" Back button until OSD disappears to exit menu and save the setting. **[SETTING SAVED]** message will be shown.

B. Main Menu

The Main menu allows user to setup and control the video recording server, some operations such as backup, switch, scandisk and format can be done in the main menu.

Main Menu

SETUP : Change the **CAMERIO RX** video recording server setting

FOOTAGE BACKUP : Backup recorded video to CD, DVD or USB Flash

SWITCH CONTROL : Turn on /off switch 1-4

SCAN / FORMAT DISK : Show the hard disk information, scandisk and format

TRANSMITTER INFO : Show the **CAMERIO RX** video recording server information

LOCK KEYS : Lock the panel keys

USER LOG-IN/OUT : User log-in or log-out

SHUT DOWN : Shut down or restart **CAMERIO RX** video recording server

Main Menu→Setup

VIDEO : Change camera, local monitoring, PTZ setting, OSD color and video format related settings

RECORDING : Change recording related settings

SWITCHES : Change switches related settings

DATE/TIME : Change date and time settings

CONNECTION : Change connection and network related settings

EVENT HANDLER : Change event related settings

TRANSMITTER : Change the video recording server name, registration checking and perform firmware upgrade

PASSWORD : Change the password

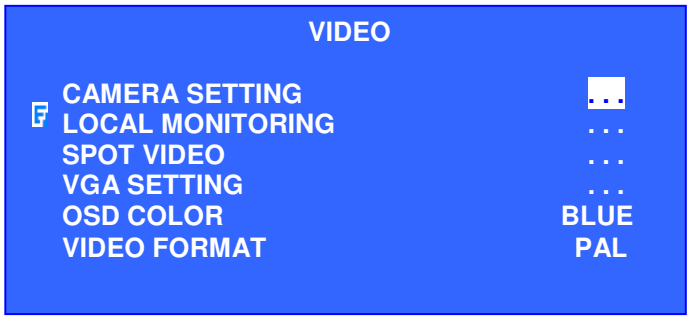
USER ACCOUNT : Add / modify user account

RX-SE : Change RX-SE setting

SETTING IMPORT /EXPORT : Import and export setting

RESTORE FACTORY SETTING : Restore default factory setting

Main Menu→ Setup→Video



CAMERA SETTING : Change camera name and install camera

LOCAL MONITORING : Change local CCTV monitor related setting

SPOT VIDEO* : Change Spot video output setting

VGA SETTING* : Change VGA output setting

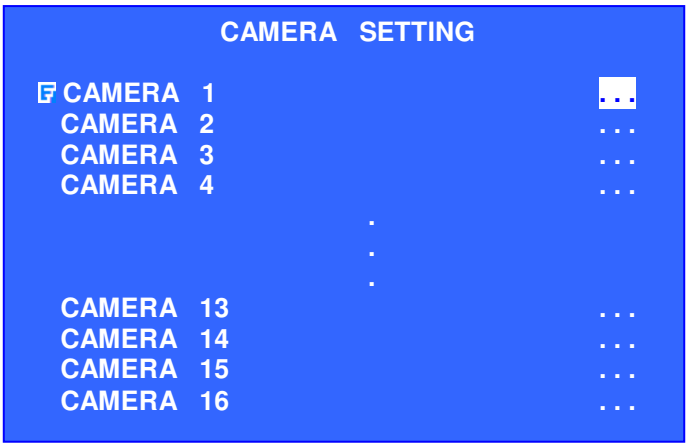
OSD COLOR : Change OSD color

VIDEO FORMAT : Change the video format to PAL or NTSC format

**Note : only supported in RX368_V2 and RX3616_V2*

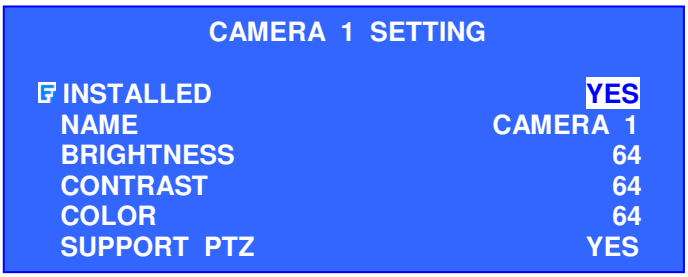
OSD Menu Operation

Main Menu→ Setup→Video→Camera Setting



Note: Number of items in this menu depends on video recording server model.

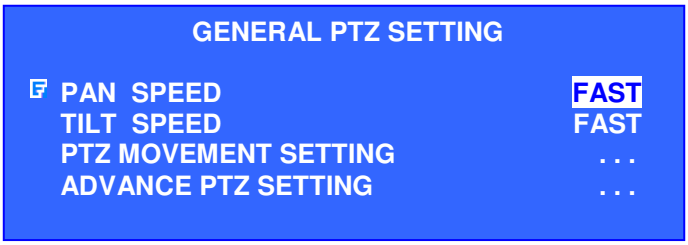
Main Menu→ Setup→Video→Camera Setting→ Camera 1 Setting



INSTALLED : Install the camera
NAME : Rename the camera
BRIGHTNESS : Change camera brightness
CONTRAST : Change camera contrast
COLOR : Change camera color
SUPPORT PTZ : Enable the PTZ camera
GENERAL PTZ SETTING : Change PTZ camera setting

***Note**: **BRIGHTNESS / CONTRAST / COLOR** settings only available in RX368_V2 and RX3616_V2*

Main Menu→ Setup→Video→Camera Setting→ Camera X Setting → General PTZ Setting



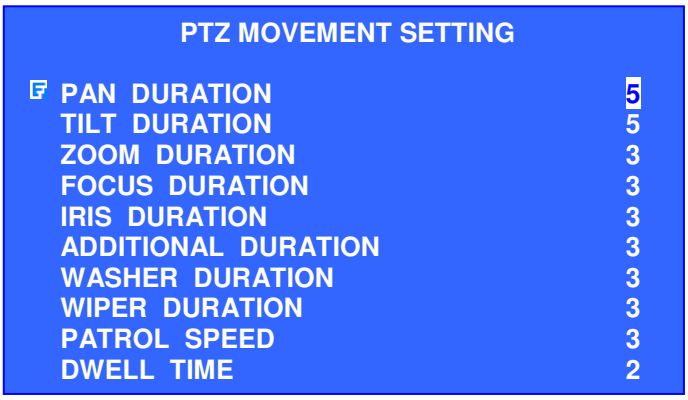
PAN SPEED : Select the pan (horizontal direction) speed of the PTZ camera

TILT SPEED : Select the tilt (vertical direction) speed of the PTZ camera

PTZ MOVEMENT SETTING : Change the PTZ camera movement duration

ADVANCE PTZ SETTING : Change the PTZ camera driver and baud rate

Main Menu→ Setup→Video→Camera Setting→ Camera X Setting → General PTZ Setting→ PTZ Movement Setting



PAN DURATION : Select the PTZ camera pan duration

TILT DURATION : Select the PTZ camera tilt duration

ZOOM DURATION : Select the PTZ camera zoom duration

FOCUS DURATION : Select the PTZ camera focus duration

IRIS DURATION : Select the PTZ camera iris duration

ADDITIONAL DURATION : Select the PTZ camera additional duration if any

WASHER DURATION : Select the PTZ camera washer duration

WIPER DURATION : Select the PTZ camera wiper duration

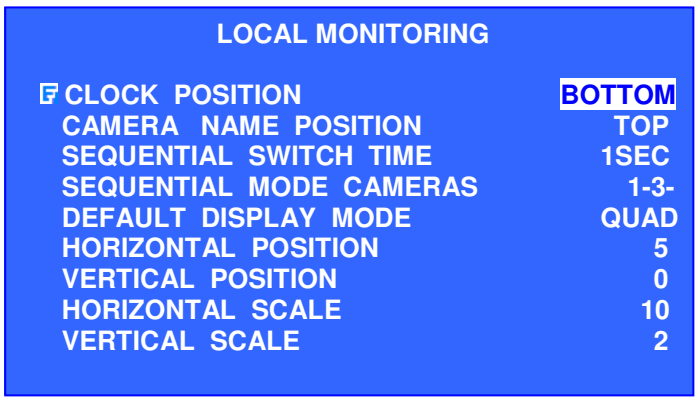
PATROL SPEED : Select the PTZ camera patrol speed

DWELL TIME : Select the PTZ camera dwell time

Main Menu→ Setup→Video→Camera Setting→ Camera X Setting → General PTZ Setting→ Advance PTZ Setting

PTZ DRIVER : Select the PTZ camera driver
BIT RATE : Select the PTZ camera bit rate

Main Menu→ Setup→Video→Local Monitoring

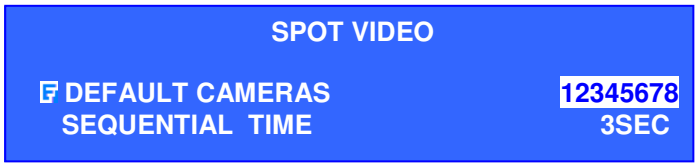


CLOCK POSITION : Change the clock position
CAMERA NAME POSITION : Change the camera name position
SEQUENTIAL SWITCH TIME : Change the switch time between each live camera display for sequential mode monitoring
SEQUENTIAL MODE CAMERAS : Select cameras for sequential mode monitoring
DEFAULT DISPLAY MODE : Select default display mode in CCTV monitor after **CAMERIO RX** video recording server boot up
HORIZONTAL POSITION : Change horizontal position of local video output
VERTICAL POSITION : Change vertical position of local video output
HORIZONTAL SCALE : Change horizontal scale of local video output
VERTICAL SCALE : Change vertical scale of local video output

For **[HORIZONTAL POSITION]**, **[VERTICAL POSITON]**, **[HORIZONTAL SCALE]** and **[VERTICAL SCALE]** options, change these options if live video position or size display does not fit in the local CCTV monitor.

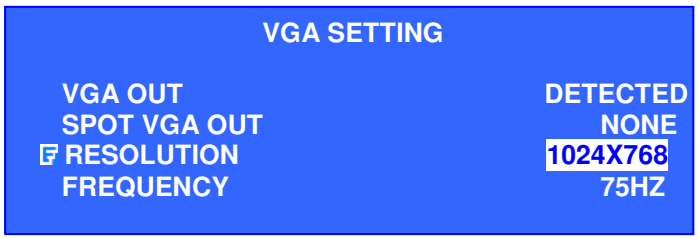
OSD Menu Operation

Main Menu→ Setup→Video→Spot Video



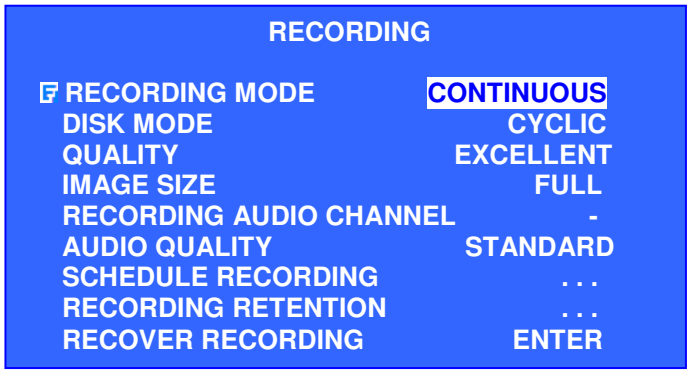
CLOCK POSITION : Change the clock position
CAMERA NAME POSITION : Change the camera name position

Main Menu→ Setup→Video→VGA Setting



VGA OUT : Change the clock position
SPOT VGA OUT : Change the camera name position
RESOLUTION : Change VGA output resolution
FREQUENCY : Change VGA output frequency

Main Menu→Setup→Recording



RECORDING MODE : Change recording mode in 1, 2, 3, 4, 5 frame per second (FPS) and continuous setting.

DISK MODE : Select the fix or cyclic disk mode

QUALITY : Change recording quality with 5 levels

IMAGE SIZE : Change recording video size in different modes

RECORDING AUDIO CHANNEL : Select the recording audio channels

AUDIO QUALITY : Change audio quality with standard or high quality

SCHEDULE RECORDING : Set up a recording schedule up to 1 week

RECORDING RETENTION : Set a retention period for recording

RECOVER RECORDING : Recover damaged recording log.

Note: Recording in cyclic disk mode can erase the oldest recording data in hard disk if the hard disk is full, whereas recording will be stopped in fix disk mode

Note: 4 and 5 FPS are not supported in RX3616_V2 when recording image size is set to FULL.

Recording Scheduler

Recording scheduler allows users to record video with user selected time. It supports 2 modes of schedule recording: normal recording and motion recording.

Normal type:

The video recording server records video with user selected frame rate. Continuous, 1FPS, 2FPS, 3FPS, 4FPS and 5FPS can be chosen in normal recording mode.

Motion type:

The video recording server records video of a camera if the selected motion block in the camera detects motion during user selected time. Motion recording only provides 1FPS and continuous recording frame rate.

Main Menu→Setup→Recording→Recording Audio Channel

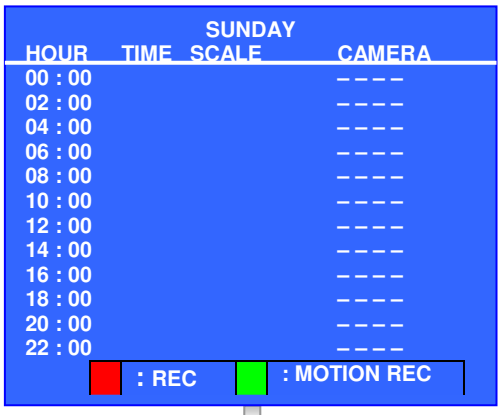
Press "**Up**" / "**Down**" / "**Left**" / "**Right**" to select the channel

Note: One audio channel for RX364. Two audio channels for RX3616_V2 and RX368_V2. Recording audio channel 1 associates with camera 1. Recording channel 2 associates with camera 2.

■ Adding Schedule In Calendar View

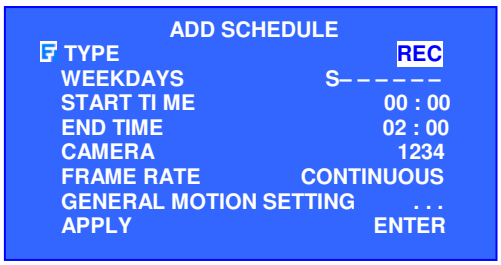
1. Press "**Menu**" button, select **[SETUP]** option and press "**Enter**" button to enter **[SETUP]** sub menu. Select **[RECORDING]** option and press "**Enter**" button, then select **[SCHEDULED RECORDING]** option and press "**Enter**" button to show recording scheduler menu.

2. Calendar View of recording schedule is shown. Press "**Enter**" button to add schedule or change view.



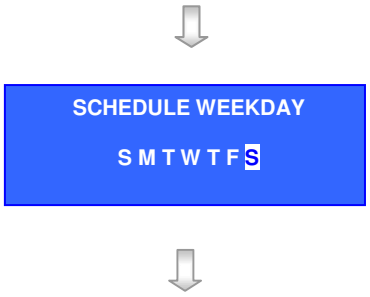
3. Select **[ADD]** option and press "**Enter**" button to add a new recording schedule.

4. Select **[TYPE]** option to choose schedule recording type. **[REC]** for normal schedule recording. **[MOTION REC]** for motion schedule recording.



OSD Menu Operation

5. Select **[WEEKDAYS]** and press "**Enter**" Enter button to select the day of time slot added in a week. Use "**Up**" ▮▮↑ or "**Down**" ■↓ button to enable the day. From left to right, the day options are Sunday (S), Monday (M), Tuesday (T), Wednesday (W), Thursday (T), Friday (F) and Saturday (S). Press "**Enter**" Enter button to apply the weekdays setting.

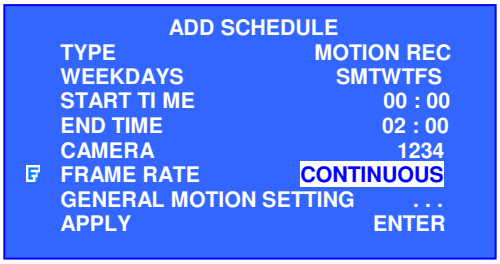


6. In **[ADD SCHEDULE]** menu, select **[START TIME]** and **[END TIME]** to choose the time interval for the schedule recording. Press "**Enter**" Enter button and use "**Up**" ▮▮↑ or "**Down**" ■↓ button to select the time. A time slot is minimum **10 minutes** long. Finally, press "**Enter**" Enter button to apply the time settings.

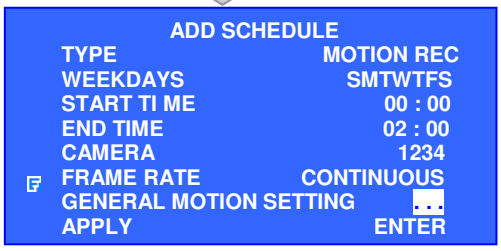
Note that :
If **[END TIME]** is earlier than **[START TIME]**, it will assume the end time is on next day.

E.g. Monday, start time : 18:00, end time : 09:00
The schedule period is from Monday 18:00 to Tuesday 09:00.

7. In **[ADD SCHEDULE]** menu, select **[CAMERA]** or **[FRAME RATE]** to choose the frame rate or camera respectively.

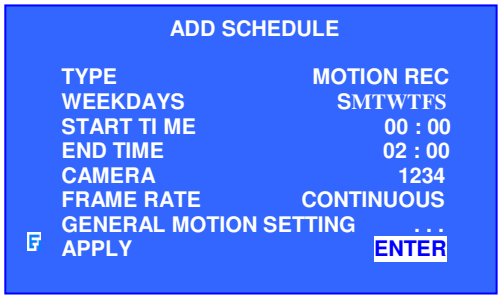


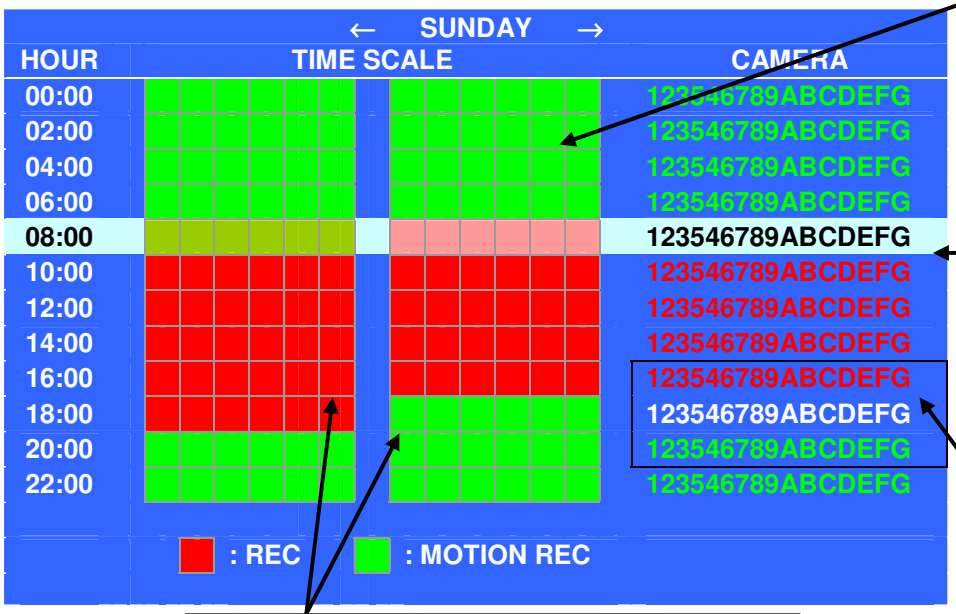
8. If user selects motion recording in **[TYPE]** option, user should set motion settings in **[GENERAL MOTION SETTING]** option.



9. Select the motion region and press "**Enter**"

10. Select **[APPLY]** and press "**Enter**" Enter button to save the recording schedule setting of the time slot.





One block of time slot on calendar view represents a 10minute schedule, so one row represents 2-hour schedule.

The row represents a period of 8:00-10:00

- Red numbers means the cameras is normal recording.
- Green numbers means the cameras is motion recording
- White numbers means the cameras are set to motion and normal in the same row, i.e. within 2 hours.

- Red block means the timeslot is set to normal recording.
- Green block means the time slot is set to motion recording.
- Only one recording type can be set in one time slot

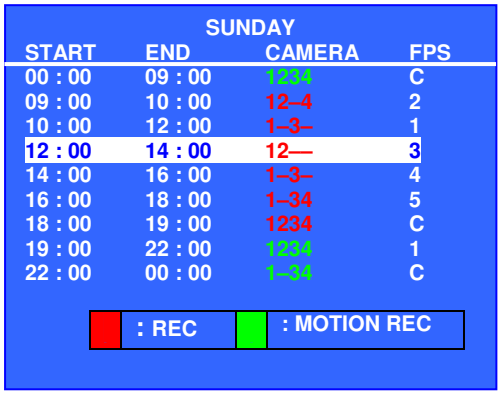
11. Press "**Live**" button to exit OSD menu or press "**Back**" button to enter action menu again. Press "**Record**" button to enter **[RECORDING]** menu. Select **[START SCHEDULE REC]** and press "**Enter**" button to activate recording scheduler

■ Recording Scheduler in List View

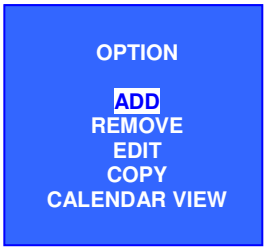
1. In calendar view, press "**Enter**" button to pop up **[OPTION]** menu. Select **[LIST VIEW]** and press "**Enter**" button to enter list view.

2. List view schedule is shown. The schedule in list view is same as the schedule in calendar view.

   Press "**Enter**" button to pop up **[OPTION]** menu.

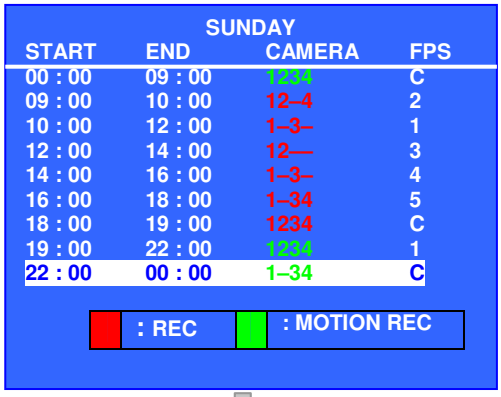


3. In **[OPTION]** menu of list view, user can add, remove, edit or copy schedule in list view. Select **[CALENDAR VIEW]** and press "**Enter**" button to return to calendar view.

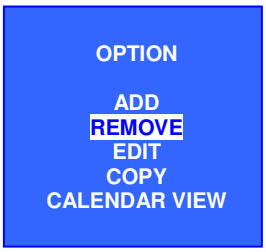


■ Removing Schedule Procedure

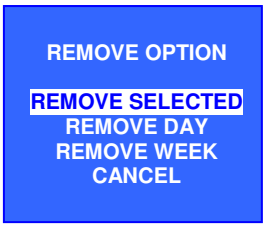
1. In list view, select the time slot that you would like to remove.



2. Press "**Enter**" Enter button to pop up **[OPTION]** menu. Select **[REMOVE]** and press "**Enter**" Enter button to pop up **[REMOVE OPTION]** menu.

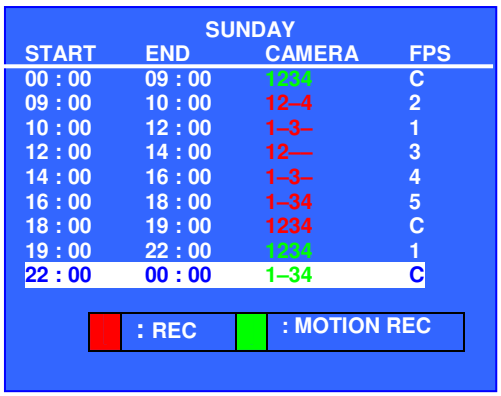


3. Select **[REMOVE SELECTED]** to remove the selected schedule. User may choose **[REMOVE DAY]** to remove all schedules for the whole day. Or, choose **[REMOVE WEEK]** to remove all schedules in a week. Select **[CANCEL]** to exit the menu without removing schedule.

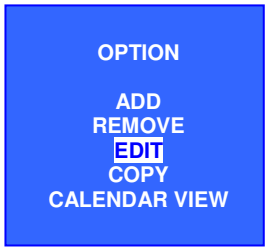


■ Editing Schedule Procedure

1. In list view, select a time slot that you would like to edit.

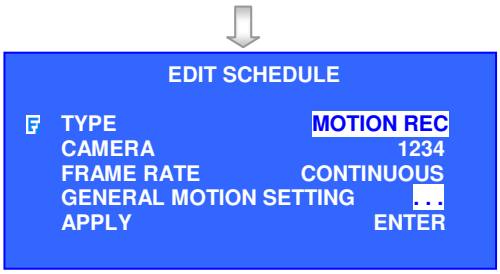


2. Press "**Enter**" Enter button to pop up **[OPTION]** menu. Select **[EDIT]** and press "**Enter**" Enter button to pop up **[EDIT SCHEDULE]** menu.



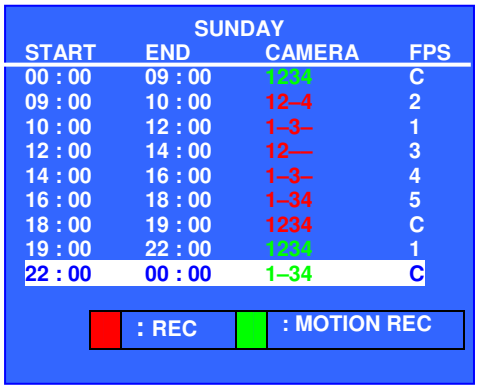
OSD Menu Operation

3. In **[EDIT SCHEDULE]** menu, user can change recording type, camera and frame rate of that schedule. If the schedule is motion recording, user should change motion settings.
After changing the settings, select **[APPLY]** and press "**Enter**" Enter button to save the new schedule settings.



■ Copying Schedule Procedure

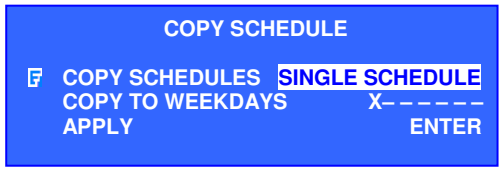
1. In list view, select the time slot that you would like to copy.



Press "**Enter**" Enter button to pop up **[OPTION]** menu.

Select **[COPY]** option and press "**Enter**" Enter button to pop up **[COPY SCHEDULE]** menu.

2. In **[COPY SCHEDULE]** menu, select **[COPY SCHEDULES]** option and user should set **[SINGLE SCHEDULE]** to copy the selected schedule of the day or set **[ENTIRE DAY]** to copy all schedules of the day.



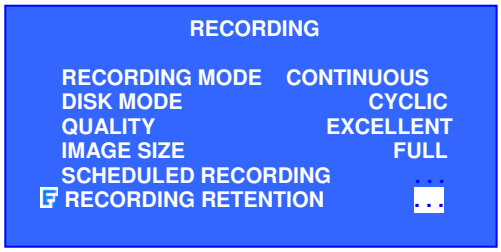
3. Select **[COPY TO WEEKDAYS]** option to set the day that the schedule copies to. Select **[APPLY]** option and press "**Enter**" Enter button to copy the schedule.

■ Recording Retention

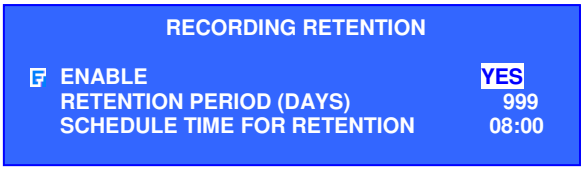
CAMERIO RX video recording server supports password protection for all menus, System administrator can setup a password to protect the video recording server from being operated by unauthorized operators

Record Retention Setup Procedure

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[RECORDING]** option and press "**Enter**" Enter button, then select **[RECORD RETENTION]** option and press "**Enter**" Enter button to show **[RECORDING RETENTION]** menu.



2. In **[RECORDING RETENTION]** menu, user and enable/disable this function, set retention period and schedule time for retention. Press "**Enter**" Enter button after selecting **[RETENTION PERIOD (DAYS)] / [SCHEDULE TIME FOR RETENTION]** and use "**Up**" or "**Down**" button to select the period / time.



Main Menu→Setup→Switches

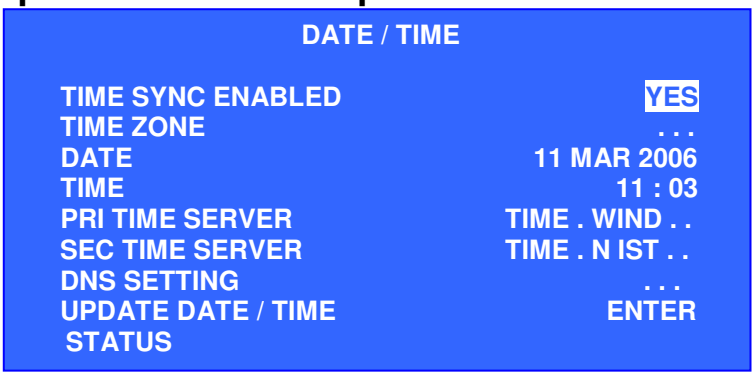
Change the switch setting by choosing "**SWITCH 1, 2, 3 and 4**"

OSD Menu Operation

Main Menu→ Setup→ Switches→ Switch 1 Setting

NAME : Edit the name of the switch
TYPE : Change the type of the switch, either **latching or push-button** type

Main Menu→ Setup→ Date Time Setup



TIME SYNC ENABLED : Enable/Disable time synchronization
TIME ZONE : Change the time zone
DATE : Set the current date
TIME : Set the current time
PRI TIME SERVER : Set a primary time server
SEC TIME SERVER : Set a secondary time server
DNS SETTING : Change the network setting
UPDATE DATE/TIME : Update date/time from server
STATUS : Show the status of time sync

Modify system time

1. System date and time can only be modified when **TIME SYNC** is disabled.
2. Press "**Enter**" Enter button to select **[DATE TIME]** or **[TIME]** option

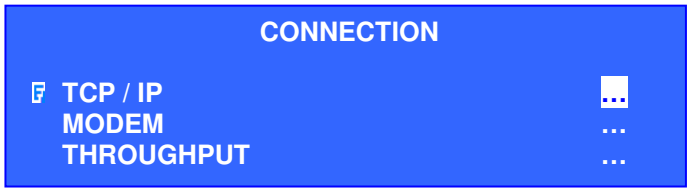
3. Press "**Left**" / "**Right**" button to select date, month, year for **[DATE TIME]** or select hour, minutes for **[TIME]** option
4. Press "**Up**" / "**Down**" button to change the value
5. Press "**Enter**" Enter button to save setting and exit this page of menu

OSD Menu Operation

Main Menu→ Setup→ Date/Time→ Time Zone

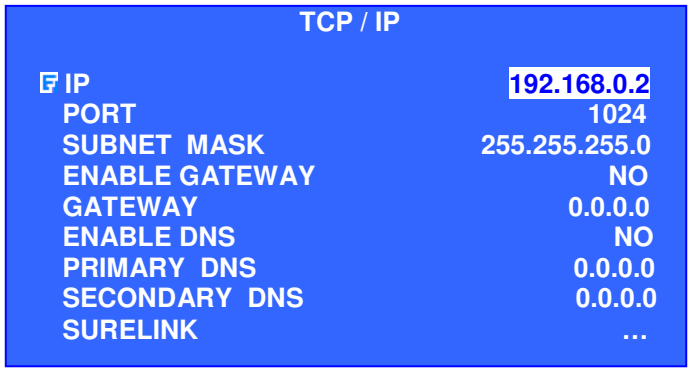
1. Select a corresponding time zone will enable Daylight saving function.
2. Press "**Left**" / "**Right**" button to select between time zones (GMT).
3. Press "**Up**" / "**Down**" button to select between different cities
4. Press "**Enter**" Enter button to save setting and back to previous menu.

Main Menu→ Setup→ Connection



TCP / IP : Configure **TCP/IP** network related setting
MODEM : Configure modem related setting
THROUGHPUT : Configure throughput control setting

Main Menu→ Setup→ Connection→ TCP / IP



IP : Change **CAMERIO RX** video recording server IP
PORT : Change **CAMERIO RX** video recording server port
SUBNET MASK : Change **CAMERIO RX** video recording server subnet mask
ENABLE GATEWAY : Enable **CAMERIO RX** video recording server gateway setting
GATEWAY : Change **CAMERIO RX** video recording server gateway
ENABLE DNS : Enable **CAMERIO RX** video recording server DNS setting

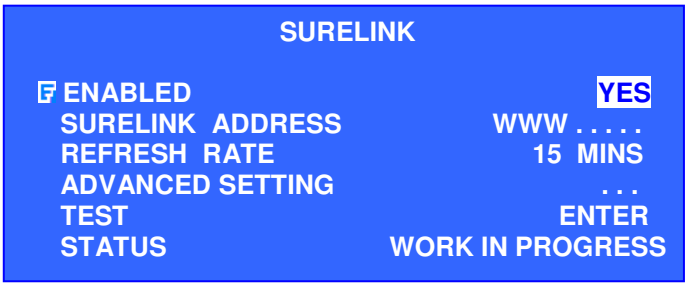
OSD Menu Operation

PRIMARY DNS : Change **CAMERIO RX** video recording server primary DNS

SECONDARY DNS : Change **CAMERIO RX** video recording server secondary DNS

SURELINK : Change **CAMERIO RX** video recording server ***sure*LINK** setting

Main Menu→ Setup→ Connection→ TCP / IP→ *sure*LINK



ENABLED : Enable ***sure*LINK** option

SURELINK ADDRESS : Change the **CAMERIO RX** video recording server ***sure*LINK** address

REFRESH RATE : Select the ***sure*LINK** refresh rate

ADVANCED SETTING : Set the primary and secondary ***sure*LINK** domain

TEST : Test connection to ***sure*LINK** server

STATUS : The status of the ***sure*LINK**

Note: There are three status; success, work in progress and fail. Success means it connects to the ***sure*LINK** *server successfully.*

Main Menu→ Setup→ Connection→ TCP / IP→ *sure*LINK → Advanced setting

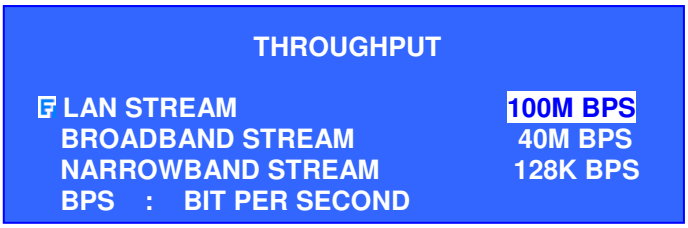
1. Select **[PRI. SURELINK DOMAIN]** and press "**Enter**" Enter button to set the primary ***sure*LINK** suffix.

2. After inputting the primary ***sure*LINK** domain, select **[SEC. SURELINK DOMAIN]** and press "**Enter**" Enter button to set the secondary ***sure*LINK** suffix.

Main Menu→ Setup→ Connection→ Modem

INTERFACE : Change the interface of the modem (USB/COM POT/DISABLE)
BAUD RATE : Change the baud rate of the modem
RING COUNT : Change the ring count to connect to the modem
TEST MODEM : Test the status of the modem

Main Menu→ Setup→ Connection→ Throughput

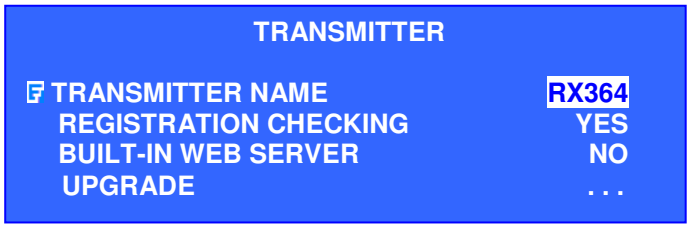


LAN STREAM : Change the data rate of LAN connection
BROADBAND STREAM : Change the data rate of broadband connection
NARROWBAND STREAM : Change the date rate of narrowband connection

Main Menu→ Setup→ Event Handler

The event handler menu contain 9 functions (**ARM/DISARM**, **SECURITY SWITCH**, **ALARM**, **MOTION**, **VIDEO LOSS**, **SYSTEM TAMPER**, **POWER FAILURE**, **DISK USAGE**, **OVERHEAT** and **HDD Available**)

Main Menu→ Setup→ Transmitter



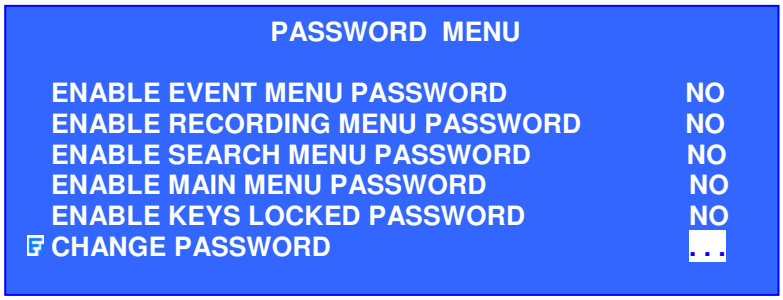
TRANSMITTER NAME : Rename the video recording server
REGISTRATION CHECKING : Check if the serial number of the video recording server match the serial number registered in the reception software WX-30 or not
BUILT-IN WEB SERVER : Change the status of built-in server
UPGRADE : Upgrade new version firmware

Main Menu→ Setup→ Transmitter→Upgrade

The new version firmware can be upgraded via USB or CD

Note: User needs to install a formatted hard disk first before the firmware upgrade through CD

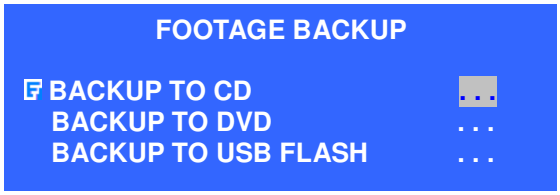
Main Menu→ Setup→ Password



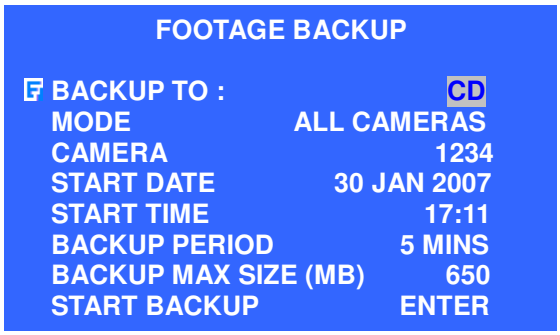
ENABLE EVENT MENU PASSWORD : Change the status of event menu password
ENABLE RECORDING MENU PASSWORD : Change the status of recording menu password
ENABLE SEARCH MENU PASSWORD : Change the status of search menu password
ENABLE MAIN MENU PASSWORD : Change the status of main menu password
ENABLE KEYS LOCKED PASSWORD : Change the status of keys locked password
CHANGE PASSWORD : Setup a new password
Note: default password = 111111

OSD Menu Operation

Main Menu→ Footage Backup

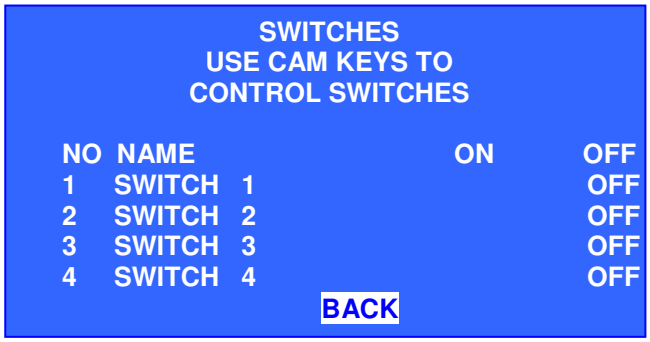


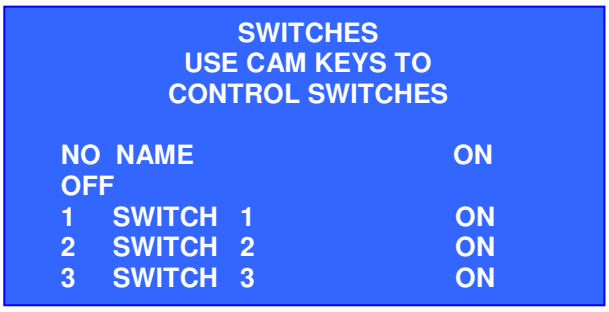
BACKUP TO CD : Backup footage to CD-R
BACKUP TO DVD : Backup footage to DVD-R
BACKUP TO USB FLASH : Backup footage to USB Flash



MODE : Set the backup type (ALL CAMERAS / SELECT CAM / QUICK)
CAMERA : Choose backup cameras
START DATE : Set the start date of the footage
START TIME : Set the start time of the footage
BACKUP PERIOD : Set the backup period
MAX BACKUP SIZE : Set the backup size (10MB ~ 650 MB for CD, 10MB ~ 4700 MB for DVD and USB Flash)
START BACKUP : Start Backup operation, and **CAMERIO RX** video recording server will search the footages from start date and time and calculate the end time of footage according to the footages size and backup size.

Main Menu→ Switch Control



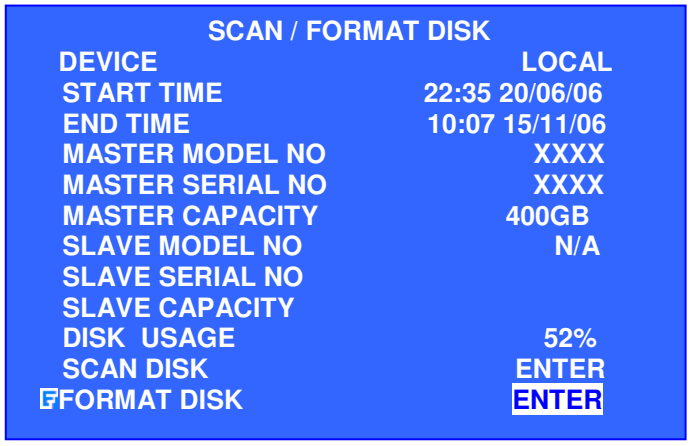


The switches can be controlled by pressing the cam keys (1, 2, 3 and 4) respectively. And the screen will show the current status (ON/OFF) of switches

SWITCH 1 : Control by cam key 1
SWITCH 2 : Control by cam key 2
SWITCH 3 : Control by cam key 3
SWITCH 4 : Control by cam key 4

OSD Menu Operation

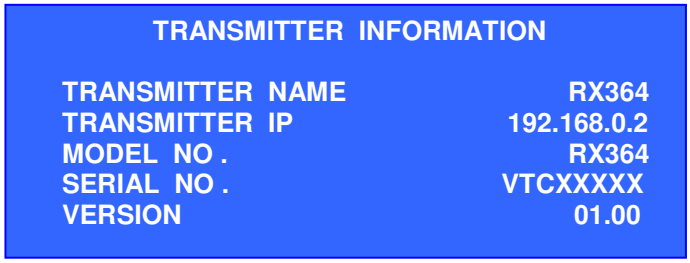
Main Menu→ Scan / Format Disk



DEVICE : Show the device type
START TIME : Show the start time of recording
END TIME : Show the end time of recording
MODEL NO : Show the device model no.
SERIAL NO : Show the device serial no.
CAPACITY : Show the capacity of the device
DISK USAGE : Show the disk usage in percentage
SCANDISK : Start HDD scanning operation
FORMAT : Start HDD formatting operation

Note :
Start time is the first recording time and end time is the latest recording time in RX. Select **[DEVICE]** *and use "**Left**"*  *or "**Right**"*  *button to choose RX-SE. It will show the first and the lastest recording time of RX-SE in START TIME and END TIME. The information under the scan/format disk sub-menu will be changed after formatted disk.*

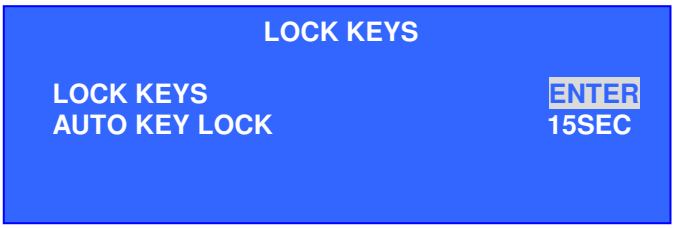
Main Menu→ Transmitter Information



TRANSMITTER NAME : Show the video recording server name
TRANSMITTER IP : Show the video recording server IP address
MODEL NO. : Show the video recording server model no.
SERIAL NO. : Show the video recording server serial no.
VERSION : Show the video recording server firmware version

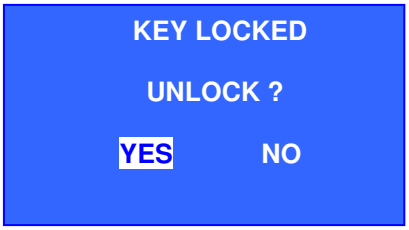
OSD Menu Operation

Main Menu→ Lock Keys



LOCK KEYS : Lock all keys on the front panel

AUTO KEY LOCK : Select auto key lock duration, keys on front panel will be automatically locked up if no button is being pressed after the selected period.



When the keys are being locked, pressing any key on the front panel the system will show a message to confirm the unlock operation. Select “YES” to unlock the keys , “NO” to keep the keys locked.

C. Recording Log Menu

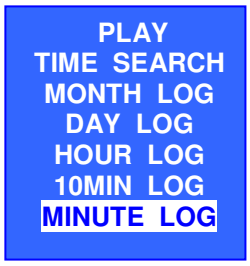
RECORDING LOG			12 – 13 AUG2005				
TIME	CAMERA	EVENT	REMARK	SENSOR	MOTION	AUDIO	VIDEOLOSS
11 : 00	1234	-----	------	----	----	--	----
12 : 00	---4	-----	------	----	----	--	----
13 : 00	----	-----	------	----	----	--	----
14 : 00	-2--	-----	------	----	----	--	----
15 : 00	----	-----	------	----	----	--	----
16 : 00	1---	-----	------	----	----	--	----
17 : 00	1---	-----	------	----	----	--	----

TIME : Show date of log
CAMERA : Show time of log
EVENT : Show event triggered
REMARK : Items are not available now
SENSOR : Show alarm sensor triggered
MOTION : Show motion trigger in which camera
AUDIO : Show audio channel
VIDEOLOSS : Show camera video loss

1. Press "**Enter**" 

button to choose play recording log, time search function and log time scale
2. Press the "**Back**" 

button to exit the recording log menu



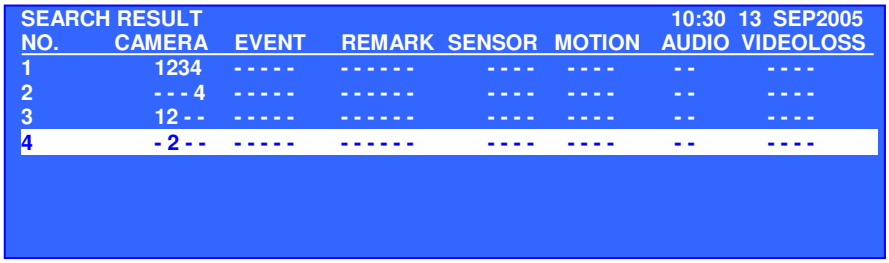
PLAY : Play the current selected record
TIME SEARCH : Search specify time recording log and play it
MONTH LOG : Change the recording log scale to month
DAY LOG : Change the recording log scale to day
HOUR LOG : Change the recording log scale to hour
10MIN LOG : Change the recording log scale to 10 minutes
MINUTE LOG : Change the recording log scale to 1 minute

Recording Log Menu→Time Search

DATE : Select the date of record
TIME : Select the time of record
CAMERA : Select the camera of record
SEARCH : Search the record
SEARCH MULTIPLE : Search the multiple records

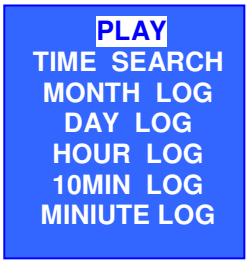
Recording Log Menu→Search Multiple

1. Select search multiple and press "**Enter**" Enter button. Multiple results will show if there is more than one record included in the search time.



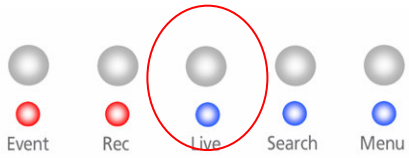
2. Select the number and press "**Enter**" Enter button.

3. Select play and Press "**Enter**" Enter button to view the result.



OSD Menu Operation

D. PTZ Menu



1. For any camera supports PTZ, **[PTZ OPTION]** menu always pops up when user press the "**Live**" Live button. Select **[DISABLE PTZ]** to disable PTZ function.
2. Use the "**Up**" / "**Down**" button to select each option

PTZ Control Interface

PTZ symbol will flash near the camera name on the OSD for current controlling PTZ camera. User can use front panel to perform pan / tilt / zoom action of the selected PTZ supported camera anytime when live monitoring on OSD.

PTZ Control Method :

1. Press "**Live**" Live button to pop up PTZ control options.

   Select any options and press "**Enter**" Enter button to pop up.

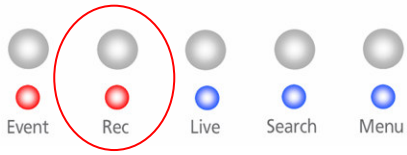
2. For example, if **[IRIS CTRL]** is selected. Iris control menu will pop up. Use "**Left**" or "**Right**" button to control - or + the value respectively.

3. To Recall Preset, Program Preset and Recall Patrol options, Press "**Live Camera Control Buttons**" to select preset numbers.

Use "**Up**" , "**Down**" buttons to select other PTZ camera control as example on the left.

OSD Menu Operation

E. Recording Menu



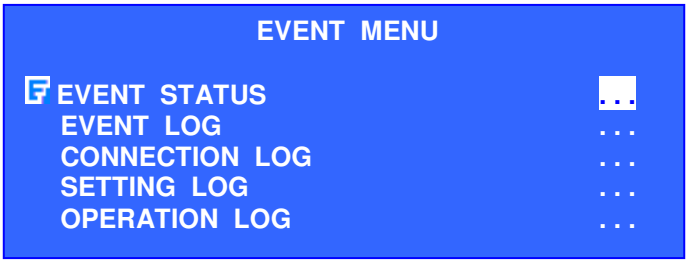
1. Press the "**Rec**" Rec button to pop up the main menu
2. Using the "**Up**" / "**Down**" button to select recording and set recording camera

START RECORDING : Start recording operation
RECORDING CAMERA : Select the camera for recording
START SCHEDULE REC : Start scheduled recording

Recording Menu→Recording Camera

1. Using the "**Left**" / "**Right**" button to select camera
2. Press the "**Up**" / "**Down**" button to enable or disable camera for recording
3. Press "**Enter**" Enter button to confirm the selection. Press the "**Back**" Back button to exit without saving any recording camera setting

F. Event Menu



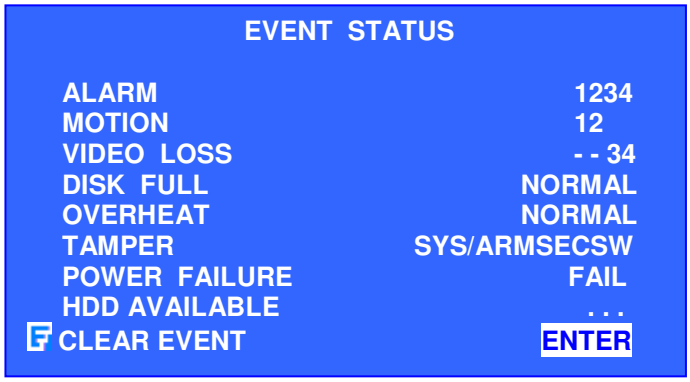
OSD Menu Operation

1. Press the "**Event**" Event button to pop up the event menu
2. Using the "**Up**" / "Down" button to select a sub-menu
3. A selected sub-menu option will be pointed by a hand cursor and highlighted
4. Press "**Enter**" Enter button to confirm the selection and pop up the sub-menu

EVENT STATUS	: Show event status
EVENT LOG	: Show the event log
CONNECTION LOG	: Show the remote connection log
SETTING LOG	: Show the setting log
OPERATION LOG	: Show the operation log

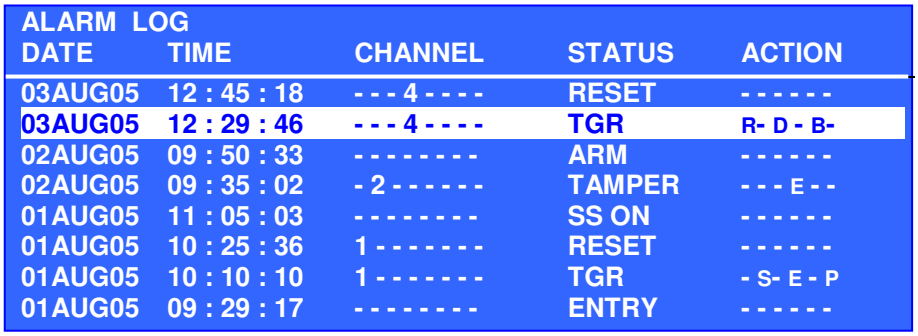
1. If menu option end with [. . .] indicates sub-menu existing, you can always press "**Enter**" Enter button to pop up the sub-menu.
2. Press the "**Back**" Back button back to previous menu and "**Live**" Live button to exit menu.

Event Menu→ Event Status



ALARM	: Show the alarm status
MOTION	: Show the motion status
VIDEO LOSS	: Show the video loss status
DISK FULL	: Show the hard disk status
OVERHEAT	: Show the overheat status
SYSTEM FAILURE	: Show the system status
TAMPER	: Show the arm, security switch and system tamper status
POWER FAILURE	: Show the status of power failure input
HDD AVAILABLE	: Show the HDD ststus
CLEAR EVENT	: Clear event

Event Menu→ Alarm Log



ALARM LOG

DATE	TIME	CHANNEL	STATUS	ACTION
03AUG05	12 : 45 : 18	- - - 4 - - - -	RESET	- - - - - -
03AUG05	12 : 29 : 46	- - - 4 - - - -	TGR	R- D - B-
02AUG05	09 : 50 : 33	- - - - - - - -	ARM	- - - - - -
02AUG05	09 : 35 : 02	- 2 - - - - - -	TAMPER	- - - E - -
01AUG05	11 : 05 : 03	- - - - - - - -	SS ON	- - - - - -
01AUG05	10 : 25 : 36	1 - - - - - - -	RESET	- - - - - -
01AUG05	10 : 10 : 10	1 - - - - - - -	TGR	- S- E - P
01AUG05	09 : 29 : 17	- - - - - - - -	ENTRY	- - - - - -

DATE : Show the date log
TIME : Show the time log
CHANNEL : Show the event number (alarm / motion & videoloss only)
STATUS : Show the status. Full description of status is shown as follow:

Display	Description
TGR	Event trigger
TAMPER	Alarm tampered
RESET	Event reset
CLEAR	User clear event status
ARM	System is armed
DISARM	System is disarmed
SS ON	Security switch turned on
SS OFF	Security switch turned off
ENTRY	Event trigger during entry delay time
EXIT	Event trigger during exit delay time

ACTION : Show the event associated action

Display	Description
R	Recording
S	Switch
D	Dial back
E	E-mail notification
M	SMS
B	Buzzer
P	Recall Preset PTZ position
L	Associate camera to local monitor

Event Menu→ Connection Log

CONNECTION LOG

DATE	TIME	USER	REMARK	IP/PHONE NO	DEVICE	STATUS
22AUG05	12 : 45 : 18	ADMIN	- - - -	192.168.0.2	TCP / IP	DISCONNECTED
22AUG05	12 : 29 : 46	ADMIN	DIAL IN	192.168.0.2	TCP / IP	CONNECTED
21AUG05	09 : 50 : 33	ADMIN	- - - -	192.168.0.2	TCP / IP	DISCONNECTED
21AUG05	09 : 35 : 02	ADMIN	DIAL BACK	192.168.0.2	TCP / IP	CONNECTED
20AUG05	11 : 05 : 03	ADMIN	- - - -	192.168.0.2	TCP / IP	DISCONNECTED
20AUG05	10 : 25 : 36	ADMIN	DIAL BACK	192.168.0.2	TCP / IP	CONNECTED
20AUG05	10 : 10 : 10	ADMIN	- - - -	192.168.0.2	TCP / IP	DISCONNECTED
20AUG05	09 : 29 : 17	ADMIN	DIAL BACK	192.168.0.2	TCP / IP	CONNECTED

DATE : Show the date log
TIME : Show the time log
USER : Show the user type connected to the video recording server through remote software
REMARK : Show the connection triggered by user or dialback action
DIAL IN→ Remote connect to video recording server
DIAL BACK→ Transmitter connect to remote
IP/PHONE NO. : Show the IP or phone number of the remote host
DEVICE : Show connection method by the remote software
STATUS : Show the connection status

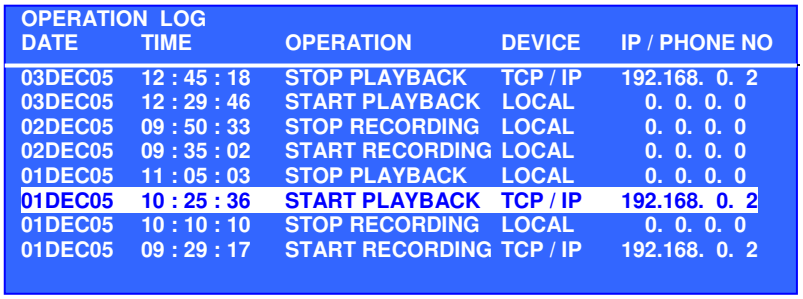
Event Menu→ Setting Log

SETTING LOG

DATE	TIME	OPERATION	CHANNEL	REMARK	DEVICE	IP / PHONE NO
03DEC05	12 : 45 : 18	ALARM SEN TYPE	- - - 4	NC	TCP / IP	192.168. 0. 2
03DEC05	12 : 29 : 46	MOTION	- - - 4	ENABLED	LOCAL	0. 0. 0. 0
02DEC05	09 : 50 : 33	RECORD MODE	- - - -	CONTINUOUS	LOCAL	0. 0. 0. 0
02DEC05	09 : 35 : 02	VIDEOLOSS	- 2 - -	ENABLED	LOCAL	0. 0. 0. 0
01DEC05	11 : 05 : 03	VIDEO FORMAT	- - - -	NTSC	TCP / IP	192.168. 0. 2
01DEC05	10 : 25 : 36	ALARM TMR TYPE	1 - - -	DEOL	TCP / IP	192.168. 0. 2
01DEC05	10 : 10 : 10	ALARM	1 - - -	ENABLED	LOCAL	0. 0. 0. 0
01DEC05	09 : 29 : 17	CAMERA	- - 3 -	INSTALLED	LOCAL	0. 0. 0. 0

DATE : Show the date log
TIME : Show the time log
OPERATION : Show the setting that was done by user (Please refer to the Appendix)
CHANNEL : Show the channel for the setting, such as alarm sensor number, camera number
REMARK : Show the set value of the setting
DEVICE : Show the setting that was done by which type of user
IP / PHONE NO : Show the IP or phone number for the remote user

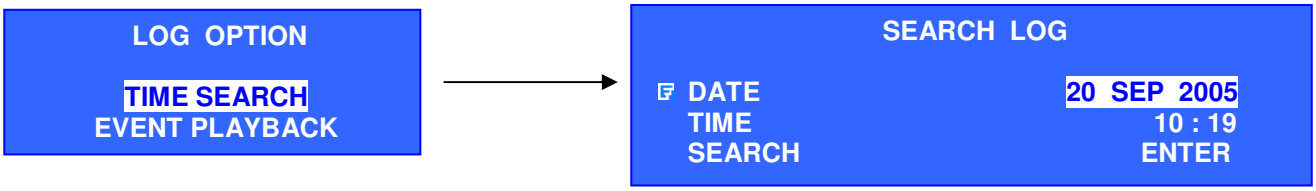
Event Menu→ Operation Log



DATE : Show the date log
TIME : Show the time log
OPERATION : Show the operation done by user (Please refer to the Appendix)
DEVICE : Show the setting done by which type of user
IP / PHONE NO : Show the IP or phone number for the remote user

Search Log

For each log, you can press "**Enter**" Enter button to enter the log option, and press "**Enter**" Enter button in **[TIME SEARCH]** option to enter search log menu.



The connection log contains the following options

DATE : Set the search date
TIME : Set the search time
SEARCH : Search the nearest record according to the **date** and **time**

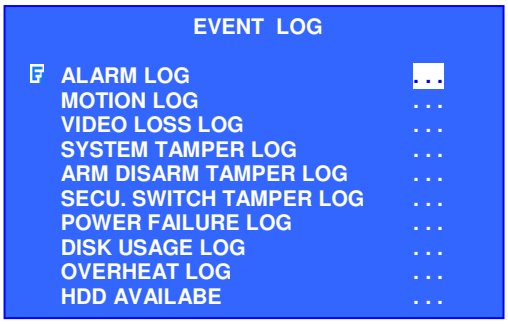
OSD Menu Operation

Playing corresponding footage from event Log

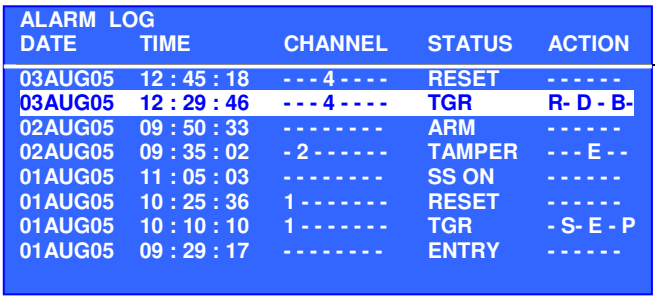
Event log playback supports user to playback the video directly from selected event log.

Event Log Playback Procedure :

1. Press "**Event**" button to pop up the event menu. Select **[EVENT LOG]** option and press "**Enter**" button to view all kinds of event logs.



2. For example, selecting **[ALARM LOG]** and press "**Enter**" button to enter alarm log menu.



3. In the alarm log menu, press "**Enter**" button to pop up **[LOG OPTION]** menu. If there exists a corresponding recording event, **[EVENT PLAYBACK]** option will be included in the **[LOG OPTION]** menu for playback the video.

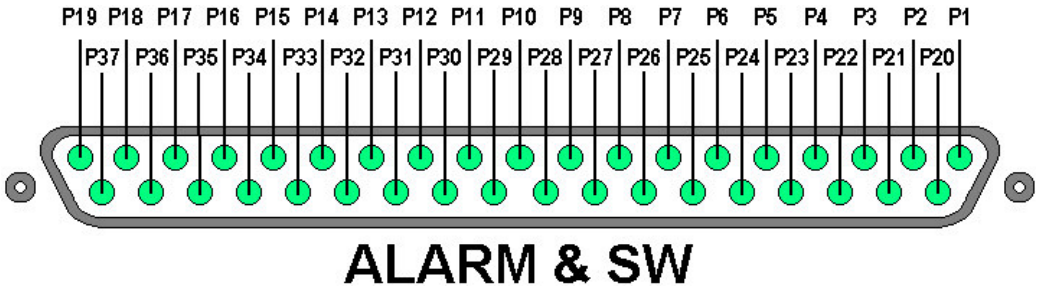
4. Select **[EVENT PLAYBACK]** and press "**Enter**" button to watch the playback for this event.

SECTION 6

Advanced Operation

A. Install CAMERIO RX with Alarm Sensors and Relay Control Port

CAMERIO RX supports up to 16 alarm ports in that order with tamper detection for connecting with alarm sensors, 4 additional input sensors and 4 relay ports for control. The definitions of alarm and relay control ports are shown in the following diagram.



Pin assignment for CAMERIO RX

Pin 1	ALARM 1	Pin 20	GND
Pin 2	ALARM 2	Pin 21	GND
Pin 3	ALARM 3	Pin 22	GND
Pin 4	ALARM 4	Pin 23	GND
Pin 5	ALARM 5	Pin 24	GND
Pin 6	ALARM 6	Pin 25	GND
Pin 7	ALARM 7	Pin 26	GND
Pin 8	ALARM 8	Pin 27	GND
Pin 9	ALARM 9	Pin 28	ARM/DISARM
Pin 10	ALARM 10	Pin 29	SECURITY SWITCH
Pin 11	ALARM 11	Pin 30	POWER FAILURE
Pin 12	ALARM 12	Pin 31	SYSTEM TAMPER
Pin 13	ALARM 13	Pin 32	ALARM 14
Pin 14	ALARM 15	Pin 33	ALARM 16
Pin 15	RELAY 0a	Pin 34	RELAY 0b
Pin 16	RELAY 1a	Pin 35	RELAY 1b
Pin 17	RELAY 2a	Pin 36	RELAY 2b
Pin 18	RELAY 3a	Pin 37	RELAY 3b
Pin 19	N/A		

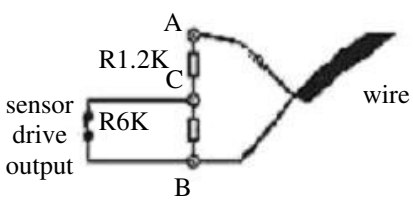
B. Install CAMERIO RX with Tamper Circuit and External Resistors

CAMERIO RX supports tamper detection (DEOL and SEOL) on all alarm inputs including arm/disarm input, security switch input, system tamper and power failure input.

DEOL: Dual End of Line termination with NC and NO connection
SEOL: Single End of Line termination with NC and NO connection
NC/NO: Alarm and other input ports without tamper detection circuit connection

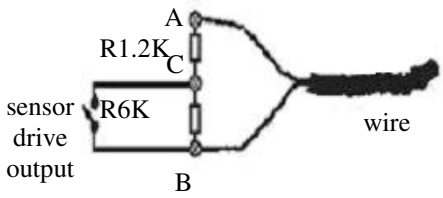
For example: By connecting the tamper circuit with DEOL, the circuit is in the normal close condition if the resistance between point A and B detects 1.2kΩ (shown as below), whereas the circuit is in normal open condition if the resistance between point A and B (shown as below) detects 7.2kΩ.The resistance transition from 1.2kΩ to 7.2kΩ is generated by an alarm tamper event for normal close circuit. The setup configuration of those alarms and input ports are shown in the following diagram. The circuit debouncing time between each sensor is 20 millisecond.

Dual End of Line Configuration



Normal Close (NC)

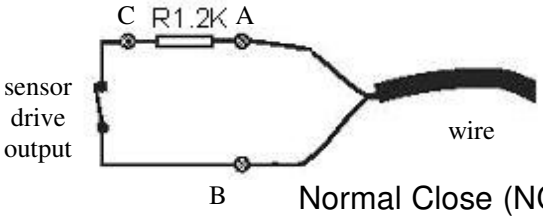
Term	Status	Description
S/C	TAMPER	Wire short (point A and B)
LoZ	NORMAL	Sensor drive output close (point B and C)
HiZ	ALARM	Sensor drive output open (point B and C)
O/C	TAMPER	Wire open (point A and B)



Normal Open (NO)

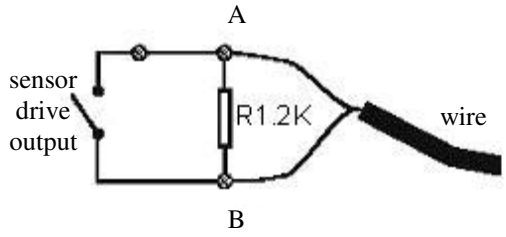
Term	Status	Description
S/C	TAMPER	Wire short (point A and B)
LoZ	ALARM	Sensor drive output close (point B and C)
HiZ	NORMAL	Sensor drive output open (point B and C)
O/C	TAMPER	Wire open (point A and B)

Single End of Line Configuration



Normal Close (NC)

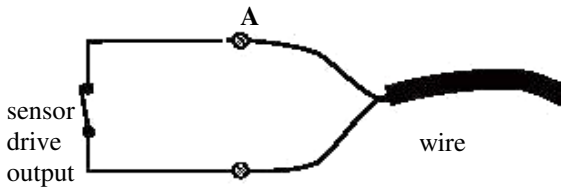
Term	Status	Description
S/C	TAMPER	Wire short (point A and B)
LoZ	NORMAL	Sensor drive output close (point B and C)
O/C	ALARM	Sensor drive output open (point B and C)



Normal Open (NO)

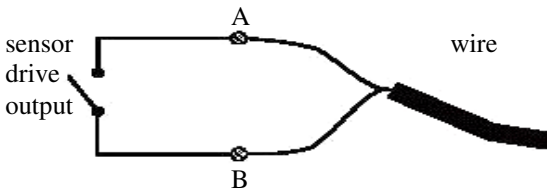
Term	Status	Description
S/C	ALARM	Sensor drive output close (point A and B)
LoZ	NORMAL	Sensor drive output open (point A and B)
O/C	TAMPER	Wire open (point A and B)

Without Tamper Detection Circuit Configuration



Normal Close (NC)

Term	Status	Description
S/C	NORMAL	Sensor drive output close (point A and B)
O/C	ALARM	Sensor drive output open (point A and B)



Normal Open (NO)

Term	Status	Description
S/C	ALARM	Sensor drive output close (point A and B)
O/C	NORMAL	Sensor drive output open (point A and B)

LEGEND	
NO	Normally Open Alarm
NC	Normally Closed Alarm
O/C	Open Circuit
S/C	Short Circuit
LoZ	Low Impedance
HiZ	High Impedance

Notes:

The table below shows the summary between the resistance network and the condition result. Note that this table is used as a reference. There may be a 10% tolerance for the resistance value in the below table.

Install CAMERIO RX with Tamper Circuit and External Resistors

Resistance (Ω)				
Condition	0~400	401~2780	2781~29.5k	29.5k~Infinity
DEOL (Normal Close)	Tamper Short	Normal (Close)	Alarm (Open)	Tamper Open
DEOL (Normal Open)	Tamper Short	Alarm (Close)	Normal (Open)	Tamper Open
SEOL (Normal Close)	Tamper Short	Normal (Close)	Alarm (N/A)	Alarm (Open)
SEOL (Normal Open)	Alarm (Close)	Normal (Open)	Alarm (N/A)	Tamper Open
NC without tamper	Normal (Close)	Alarm (N/A)	Alarm (N/A)	Alarm (Open)
NO without tamper	Alarm (Close)	Alarm (N/A)	Alarm (N/A)	Normal (Open)

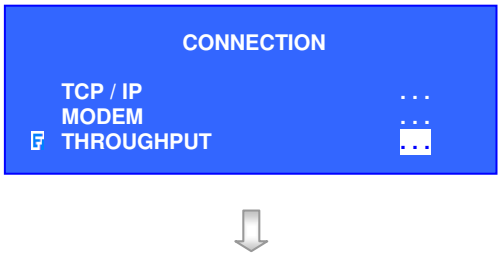
Alarm (N/A): Alarm is not applicable.

C. Throughput Control

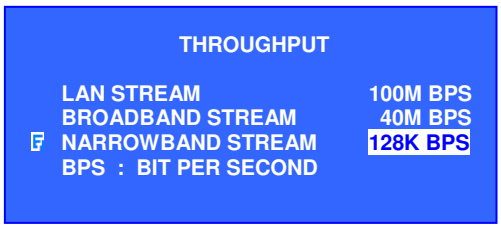
Throughput control function can limit the video recording server output data rate.

Throughput Control Setup Procedure

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[CONNECTION]** option and press "**Enter**" Enter button to show connection setting menu. Select **[THROUGHPUT]** option to enter the throughput control menu.



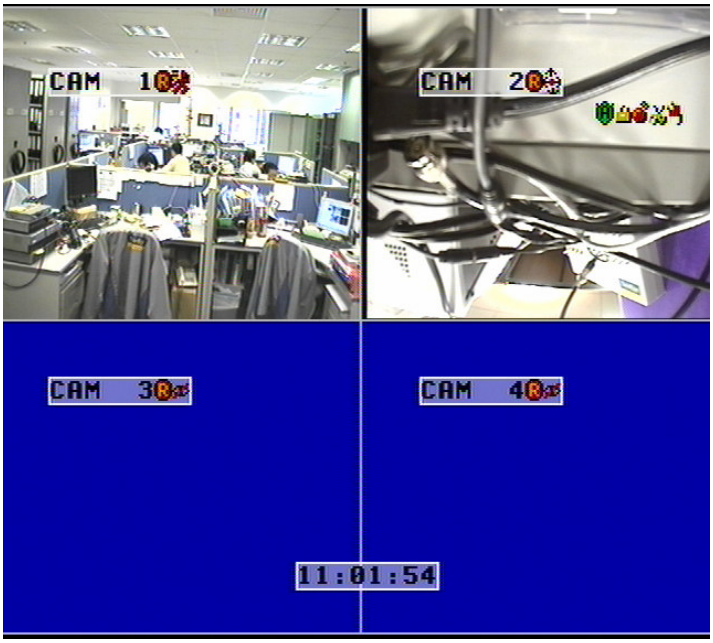
2. Choose **[LAN STREAM]**, **[BROADBAND STREAM]** and **[NARROWBAND STREAM]** to select the data rate of respective connection.



D. Event Handling

CAMERIO RX video recording server supports 10 events and their icons are as follows.

1. **Arm/Disarm**
2. **Security Switch**
3. **Alarm**
4. **Motion**
5. **Video loss**
6. **System Tamper**
7. **Power Failure**
8. **Disk Usage**
9. **Overheat**
10. **HDD available**



CAMERIO RX supports 10 actions which can be activated by any events as above.

1. **Recording**
2. **Switch**
3. **Dial back**
4. **Email**
5. **SMS**
6. **Buzzer**
7. **Event LED**
8. **Live Camera**
9. **PTZ**
10. **Spot Alarm** *(Only supported by RX 368_V2 and RX 3616_V2)*

Event and Action Icons in Local CCTV Monitor

The icons of the 10 events are shown as above. If an event is being triggered, its respective icon will be flashing on the top right corner (for events: arm/disarm, security switch, alarm, power failure, system tamper) or next to the camera name (for events: motion, video loss). If an event has been triggered before user clear, the icon will remain static on its original position.

1. Arm/Disarm

Arm/Disarm
Arm/Disarm input is used for enhancing security level of the surveillance area. This input introduces the concept of 3 zone types of alarm, fire zone, normal and entry exit zone.

Armed
If the system is armed, alarm sensor in normal zone type can be triggered immediately if someone triggers the sensor. It is usually used when there is no operator at surveillance area.

Disarmed
If the system is disarmed, alarm events detected from sensors will not result in an alarm except the fire zone type alarm and arm/disarm tamper. If there are operators at surveillance area, it is usually disarmed.

Arm/Disarm Tamper Type
Arm/Disarm tamper event triggers if someone cuts the wire between the arm/disarm input and the video recording server. This event can be triggered immediately no matter which the zone is. Arm/Disarm tamper type has choice of none, SEOL and DEOL.

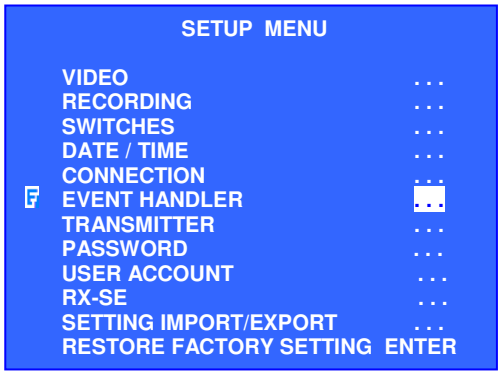
Arm State
The arm/disarm input circuit type is normal close (NC). When the state of the circuit is close, it indicates disarm of **CAMERIO RX**. Otherwise, when the state of the circuit is open, it indicates arm of **CAMERIO RX**. The arm/disarm input circuit type is normal open (NO). When the state of the circuit is open, it indicates disarm of **CAMERIO RX**. Otherwise, when the state of the circuit is close, it indicates arm of **CAMERIO RX**.

Physical Configuration for Arm/Disarm
The arm/disarm input and ground of **CAMERIO RX** video recording server needs to connect to a control unit which is commonly a switch or password panel for arm/disarm input.

Event Handling

Arm/Disarm Setup Procedure

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub-menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button.



2. Select **[ARM/DISARM]** option and press "**Enter**" Enter button to show arm/disarm setting menu.

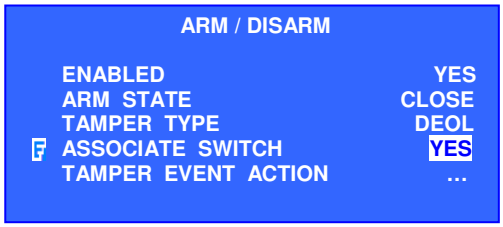
3. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) the arm/disarm function.

4. Select **[ARM STATE]** option and use "**Left**" or "**Right**" button to choose arm state according to the configuration of **CAMERIO RX** arm/disarm control circuit type.

5. Select **[TAMPER TYPE]** option and use "**Left**" or "**Right**" button to choose arm/disarm tamper circuit type according to the configuration of **CAMERIO RX** arm/disarm tamper circuit type.

Event Handling

6. Select **[ASSOCIATE SWITCH]** option and use "**Left**" or "**Right**" button to select **[YES]** and enable **switch 1 only** for arm/disarm associate switch. Switch 1 will be ON when **CAMERIO RX** is armed. Switch 1 will be OFF when **CAMERIO RX** is disarmed. Switch 1 cannot be activated by other events anymore if it is an associate switch of arm/disarm.



7. Select **[TAMPER EVENT ACTION]** option and press "**Enter**" Enter button to select arm/disarm tamper action. (For action, please refer to Event Action Part in Advance Operation Section of User Guide)

2. Security Switch

Security Switch

It is an input to the video recording server for wiring a security switch. The purpose of the security switch is to terminate the exit delay for exit zone alarm. If the security switch is on and the system is armed, all exit delay will be terminated. If the security switch is off and an entry alarm is triggered, entry delays will start.

Security Switch Tamper Type

Security switch tamper event will be triggered if someone cuts the wire between the security switch input and the video recording server. This event behaves as fire zone type that can be triggered once the wire is being cut. Arm/Disarm tamper type has choice of none, SEOL and DEOL.

On State

The security switch input circuit type is normal close (NC). When the state of the circuit is close, it indicates security switch off of **CAMERIO RX**. Otherwise, when the state of the circuit is open, it indicates security switch on of **CAMERIO RX**. The security switch input circuit type is normal open (NO). When the state of the circuit is opened, it indicates security switch off of **CAMERIO RX**. Otherwise, when the state of the circuit is closed, it indicates security switch on of **CAMERIO RX**.

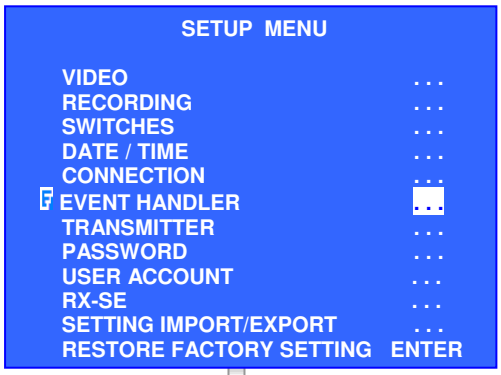
Physical Configuration for Security Switch

The security switch input and ground of **CAMERIO RX** video recording server needs to connect to a control circuit which is commonly the lock of the surveillance area for security switch input.

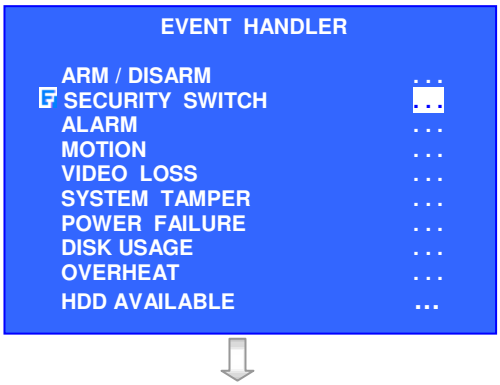
Event Handling

Security Switch Setup Procedure

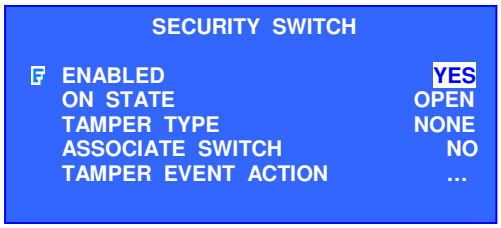
1. Press "**Menu**" button, select **[SETUP]** option and press "**Enter**" button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" button.



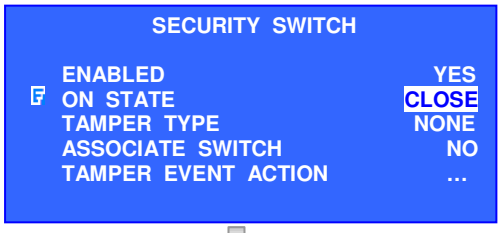
2. Select **[SECURITY SWITCH]** option and press "**Enter**" button to show security switch setting menu.



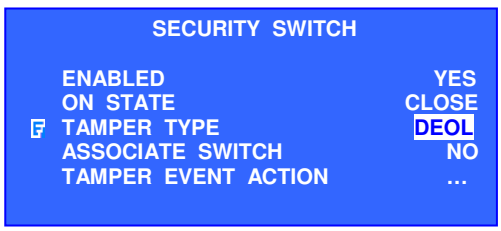
3. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) the security switch function.



4. Select **[ON STATE]** option and use "**Left**" or "**Right**" button to choose on state according to the configuration of **CAMERIO RX** security switch control circuit type.

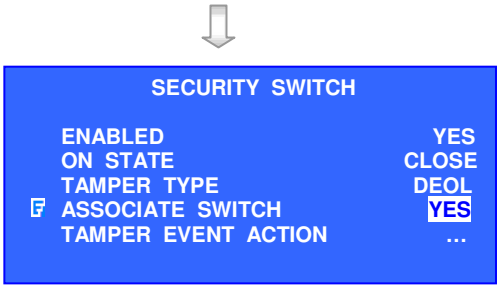


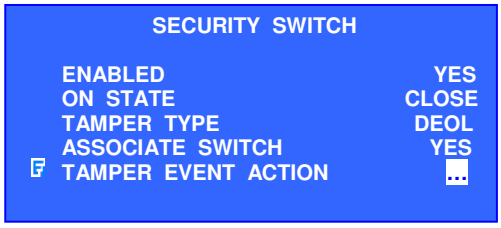
5. Select **[TAMPER TYPE]** option and use "**Left**" or "**Right**" button to choose security switch tamper circuit type according to the configuration of **CAMERIO RX** security switch tamper circuit type.



Event Handling

6. Select **[ASSOCIATE SWITCH]** option and use "**Left**" or "**Right**" button to select **[YES]** and enable **switch 2 only** for security switch associate switch. Switch 2 will be ON when the security switch is on. Switch 1 will be OFF when the security switch is off. Switch 2 cannot be activated by other events anymore if it is an associate switch of security switch.
7. Select **[TAMPER EVENT ACTION]** option and press "**Enter**" button to select security switch tamper action. (For action, please refer to Event Action Part in Advance Operation Section of User Guide)





3. Alarm

Alarm

It is an input to the video recording server from external alarm sensors. Alarm can be used to detect many events occur at the surveillance area, such as fire and illegal entering by someone. The alarm event supports BS 8418:2003 which has arm/disarm and security switch functions.

Sensor Tamper Type
Alarm tamper event will be triggered if someone cuts the wire between the alarm input and the video recording server. This event behaves as fire zone type that can be triggered once the wire is being cut. Alarm tamper type has choice of none, SEOL and DEOL.

Sensor Type
The alarm sensor input circuit type is normal close (NC). When the state of the circuit is closed; it indicates normal of **CAMERIO RX**. Otherwise, when the state of the circuit is opened, it indicates alarm trigger of **CAMERIO RX**. The alarm sensor input circuit type is normal open (NO). When the state of the circuit is open; it indicates normal of **CAMERIO RX**. Otherwise, when the state of the circuit is closed, it indicates alarm trigger of **CAMERIO RX**.

Zone Type
All alarm sensors can be associated with zone types if ARM/DISARM input is installed.

Normal Zone
This zone allows alarms to be triggered after armed.

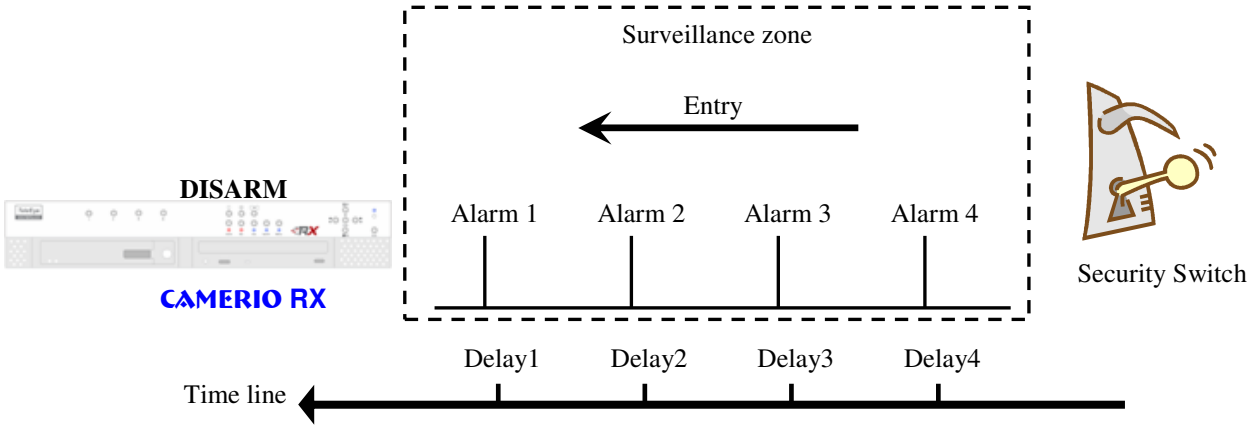
Fire Zone
This zone allows alarms to be triggered no matter which arm state of the system is, i.e. armed or disarmed. It is suitable for installation of fire detectors

Entry/Exit Zone
This zone allows user to set the delay time for entering or leaving the surveillance area without triggering any alarm event. If alarm recording action is enabled, recording starts at entry or exit time throughout the delay.

Event Handling

Example of Entry/Exit Zone WITH Security Switch Usage

For Entry Zone:



The entry delay is the period of time between entering the surveillance zone and reaching the video recording server. In order to disarm the system for maintenance or repair, user / installer needs to turn off the security switch and enter the surveillance zone. However, the delay time starts from the 1st trigger by the 1st alarm sensor (i.e. Alarm 4). Note that if user enables recording action, recording action is automatically activated during entry delay.

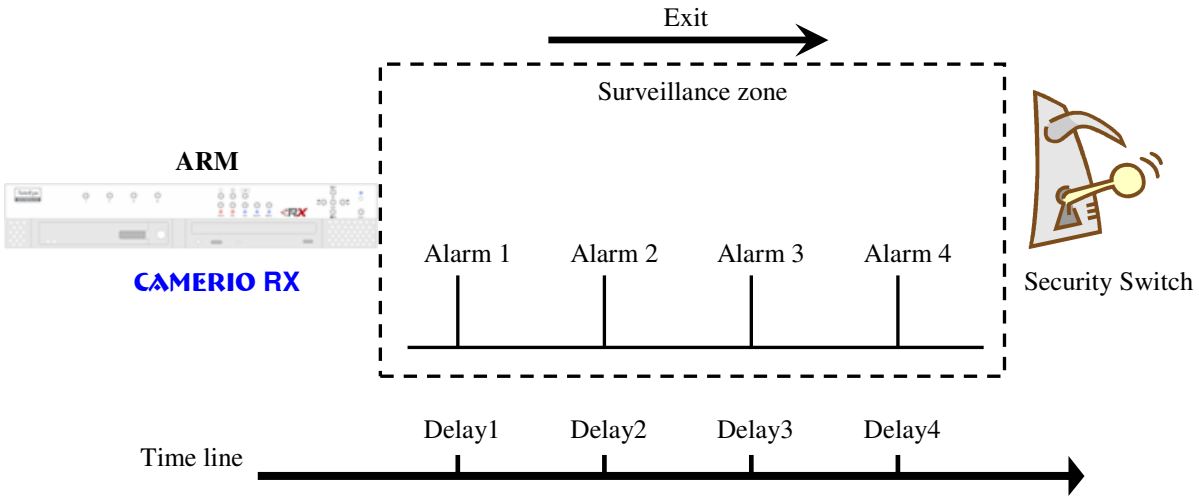
The detail procedure is as below:

1) user turns off security switch
2) the alarm is set at entry delay
3) the 1st trigger is made by Alarm 4 (i.e. user enters the surveillance zone and the entry delay time begins)
4) 2nd, 3rd and 4th trigger are made and each entry delay starts respectively
5) user disarms the system for maintenance

For example: If the time for going from security switch to video recording server is about 8 minutes, Delay 1 should be longer than 8 minutes, while Delay 2 should be longer than the time for going from security switch to Alarm 2, and so on.

Event Handling

For Exit Zone:



The exit delay is the period of time for leaving a surveillance zone without making false alarm (i.e. Alarm 1, Alarm 2, Alarm 3 and Alarm 4). The purpose is to let the user / installer have enough time to leave the surveillance zone after the video recording server is armed. User / installer can set the delay time for each alarm.

The detail procedure is as below:

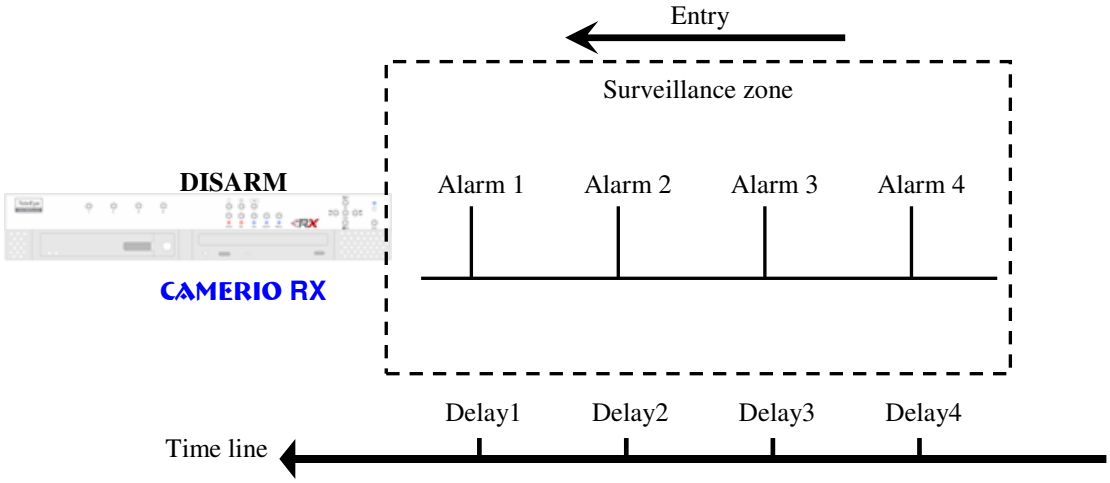
1) user arms the system
2) the alarm is set at exit delay
3) the 1st trigger is made by Alarm 1 (i.e. user leaves the surveillance zone and the exit delay time begins)
4) 2nd, 3rd and 4th triggers are made and each exit delay starts respectively
5) User turns on the security switch or waits for any alarm exit delays to expire.

For example, if the time for leaving the surveillance zone is about 8 minutes, user should adjust the delay time so that Delay 1 = leaving time between video recording server and Alarm 1, Delay 2 = leaving time between video recording server and Alarm 2, Delay 3 = leaving time between video recording server and Alarm 3 and Delay 4 = 8 minutes. The alarm will be activated after the exit delay expired. Note that if user enables recording action, recording action is automatically activated during exit delay.

Event Handling

Example of Entry/Exit Zone WITHOUT Security Switch Usage

For Entry Zone:



The entry delay is the period of time between entering the surveillance zone and reaching the video recording server. In order to disarm the system for maintenance or repair, user / installer enters the surveillance zone, and the delay time starts from the 1st trigger by the 1st alarm sensor (i.e. Alarm 4) automatically. Note that if user enables recording action, recording action is automatically activated during entry delay.

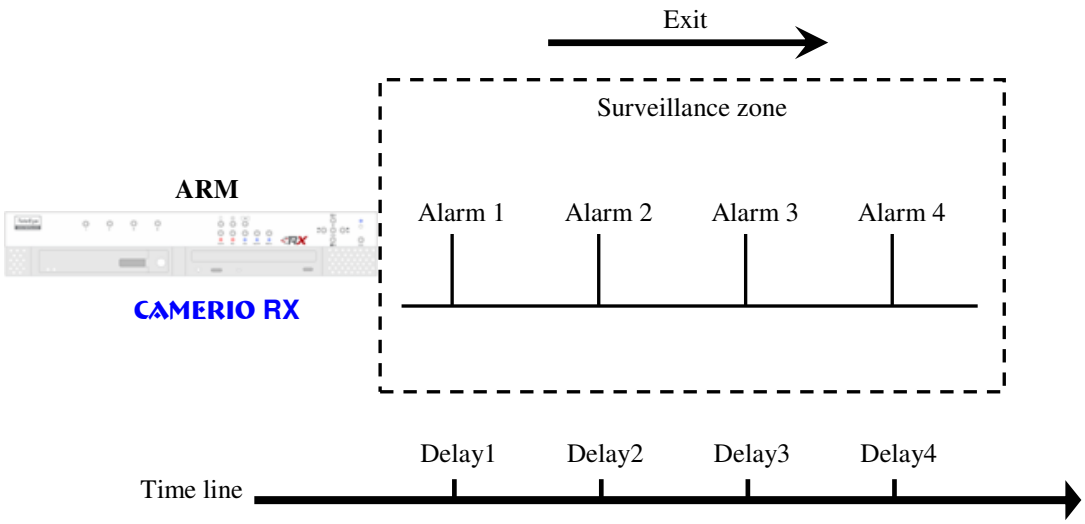
The detail procedure is as below:

1) the alarm is at entry delay
2) the 1st trigger is made by Alarm 4 (i.e. user enters the surveillance zone and the entry delay time begins)
3) 2nd, 3rd and 4th trigger are made and each entry delay starts respectively
4) user disarms the system for maintenance

For example: If the time for going from Alarm 4 to video recording server is about 8 minutes, Delay 1 should be longer than 8 minutes, while Delay 2 should be longer than the time for going from security switch to Alarm 2, and so on.

Event Handling

For Exit Zone :



The exit delay is the period of time for leaving a surveillance zone without making false alarm (i.e. Alarm 1, Alarm 2, Alarm 3 and Alarm 4). The purpose is to let the user / installer have enough time to leave the surveillance zone after the video recording server is armed. User / installer can set the delay time for each alarm.

The detail procedure is as below:

1) user arms the system
2) the alarm moves to exit delay
3) the 1st trigger is made by Alarm1 (i.e. user leaves the surveillance zone and the exit delay time begins)
4) 2nd, 3rd and 4th trigger are made and each exit delay starts respectively
5) user waits for any alarm exit delay to expire.

For example, if the time for leaving the surveillance zone is about 8 minutes, user should adjust the delay time so that Delay 1 = leaving time between video recording server and Alarm 1, Delay 2 = leaving time between video recording server and Alarm 2, Delay 3 = leaving time between video recording server and Alarm 3 and Delay 4 = 8 minutes. The alarm will be activated after the exit delay expired. Note that if user enables recording action, recording action is automatically activated during exit delay.

Event Handling

Different Combination Cases of Arm/Disarm, Security Switch and Alarm for the 3 Zone Type

Initial State			Step 1	Step 2	Step 3	Result
Arm	Security Switch	Alarm				
Fire Zone						
Arm	On	No trigger	Trigger alarm	\	\	Alarm trigger
Arm	Off	No trigger	Trigger alarm	\	\	Alarm trigger
Arm	Uninstall	No trigger	Trigger alarm	\	\	Alarm trigger
Disarm	\	No trigger	Trigger alarm	\	\	Alarm trigger
Uninstall	\	No trigger	Trigger alarm	\	\	Alarm trigger
Uninstall	Uninstall	No trigger	Trigger alarm	\	\	Alarm trigger
Normal						
Arm	On	No trigger	Trigger alarm	\	\	Alarm trigger
Arm	Off	No trigger	Trigger alarm	\	\	Alarm trigger
Arm	Uninstall	No trigger	Trigger alarm	\	\	Alarm trigger
Disarm	\	No trigger	Trigger alarm	\	\	No alarm trigger
Uninstall	\	No trigger	Trigger alarm	\	\	Alarm trigger
Uninstall	Uninstall	No trigger	Trigger alarm	\	\	Alarm trigger
Entry / Exit Zone						
Arm	On	No trigger	Trigger alarm	\	\	Alarm trigger
Disarm	Off	No trigger	Arm	Trigger alarm. Exit delay starts. Recording starts (if recording action is enabled)	Security switch on. Exit delay ends. Recording stops	Alarm can be triggered any time after that
					Security switch off. Exit delay ends after the preset exit time value. Recording stops	Alarm can be triggered any time after that

Event Handling

Initial State			Step 1	Step 2	Step 3	Result
Arm	Security Switch	Alarm				
Entry / Exit Zone						
Arm	On	No trigger	Security switch off	Trigger alarm. Entry delay starts. Recording starts (if recording action is enabled)	Disarm	No alarm trigger. Recording stops
					Arm	Alarm is triggered Recording does not stop unless user disarm the system
Disarm	Uninstall	No trigger	Arm	Trigger alarm. Exit delay starts. Recording starts (if recording action is enabled)	Exit delay ends after the preset exit time value. Recording stops	The system will enter entry delay automatically after next alarm trigger
Arm	Uninstall	No trigger	Trigger alarm. Entry delay starts. Recording starts (if recording action is enabled)	Disarm	\	No alarm trigger. Recording stops.
				Arm	\	Alarm is triggered. Recording does not stop unless user disarm the system.
Disarm		No trigger	Trigger alarm	\	\	No alarm trigger
Uninstall		No trigger	Trigger alarm	\	\	Alarm trigger
Uninstall	Uninstall	No trigger	Trigger alarm	\	\	Alarm trigger

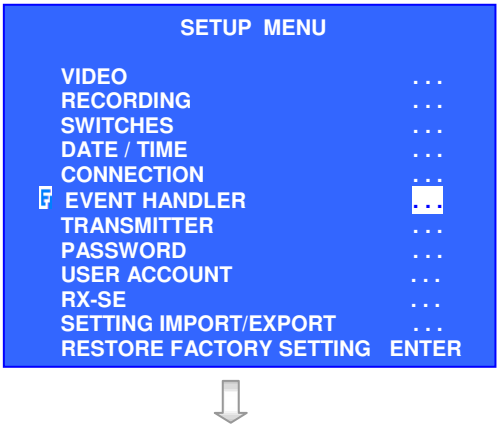
Event Handling

Physical Configuration for Alarm

The alarm input and ground of **CAMERIO RX** video recording server need to connect to various kinds of sensors which are commonly installed at entrance or special part of the surveillance area.

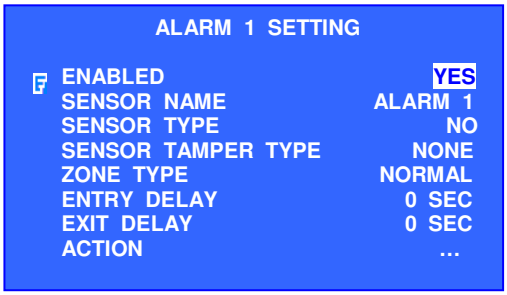
Alarm Setup Procedure

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button.

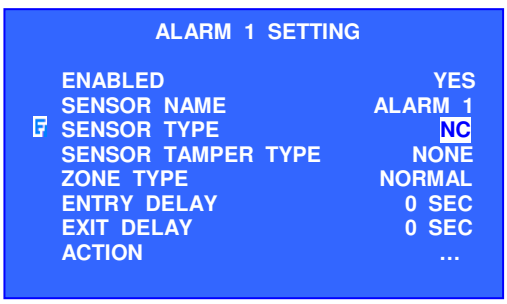


2. Select **[ALARM]** option and press "**Enter**" Enter button to show the alarm selection menu. Select appropriate alarm and press "**Enter**" Enter button to enter the alarm setting menu.

3. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) alarm.

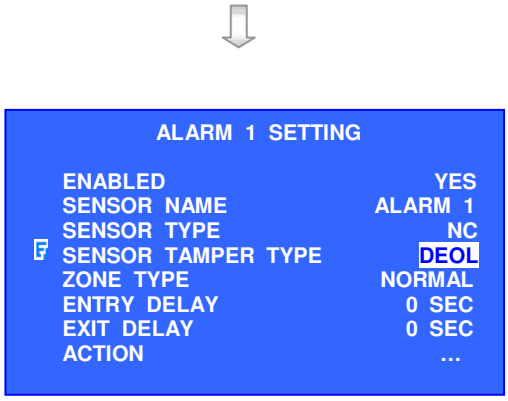


4. Select **[SENSOR TYPE]** option and use "**Left**" or "**Right**" button to choose sensor type according to the configuration of **CAMERIO RX** alarm sensor control circuit type.

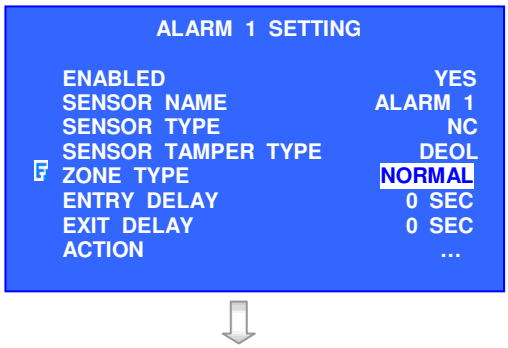


Event Handling

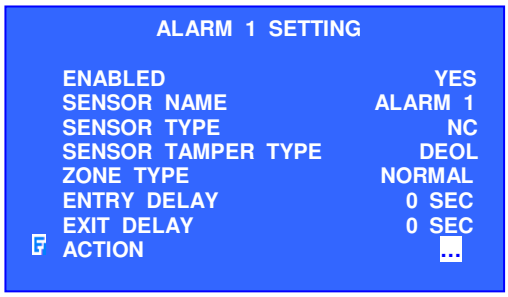
5. Select **[SENSOR TAMPER TYPE]** option and use "**Left**" or "**Right**" button to choose alarm sensor tamper circuit type according to the configuration of **CAMERIO RX** alarm sensor tamper circuit type.



6. Select **[ZONE]** option and use "**Left**" or "**Right**" button to choose zone type. Select **[ENTRY DELAY]**, **[EXIT DELAY]** option and use "**Left**" or "**Right**" button to choose entry and exit delay



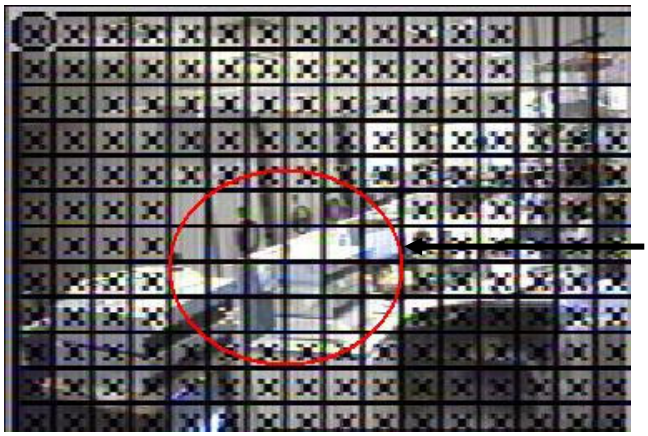
7. Select **[ACTION]** option and press "**Enter**" button to select alarm trigger or tamper action. (For action, please refer to Event Action Part in Advance Operation Section of User Guide)



Motion

Motion

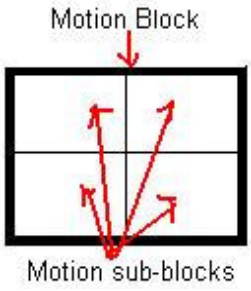
Motion detection can be triggered when motion occurs on the camera. Motion detection has different sensitivity levels. For motion event on each video input channel, it depends on the motion of selected area. User should set up the select motion areas and sensitivity. Motion detection has generally 4 options: **high**, **middle**, **low** and **custom**. Custom option allows user to select the sensitivity level and area by themselves.



Motion Detection Example

If motion detection is enabled, object movement is captured by the camera as shown below.

The figure on the left shows motion detection. The normal display area is the selected motion detection area. The crossed area cannot detect any motion. Motion block is activated when there is any movement on the camera.



Sensitivity

Level

The level definition of motion detection is due to the luminance level difference between current and reference field. The level range is 1 to 10, 1 is the most sensitive and 10 is the least sensitive

Area

In motion detection, one selected motion block is divided into four sub-blocks. The definition of area is how many sub-blocks have detected motion in order to trigger a motion event. The range of area option is 1 to 4. More blocks are selected, the motion trigger sensitivity decreases.

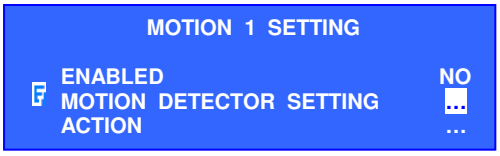
Motion Setup Procedure

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button.

Event Handling

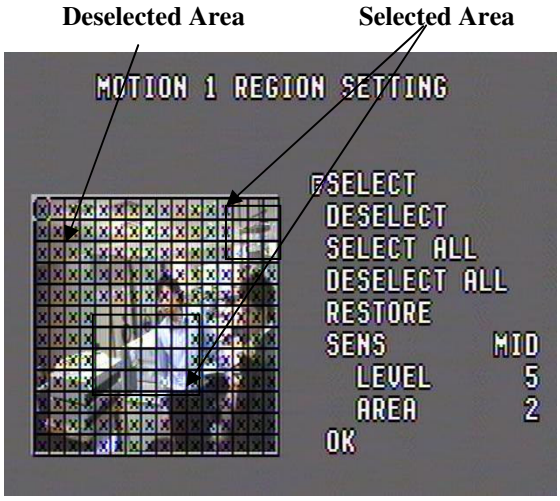
2. Select **[MOTION]** option and press "**Enter**" Enter button to show the motion selection menu. Select motion and press "**Enter**" Enter button to enter the motion setting menu.

3. Enable the motion setting. Select **[MOTION DETECTIOR SETTING]** option and press "**Enter**" Enter button to setup motion detection setting.



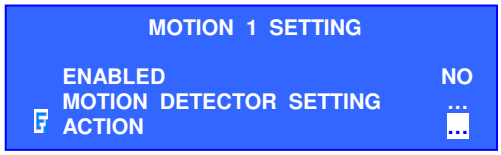
4. Setting motion detection as follow:

DESELECT	**:** deselect motion area
SELECT	**:** select motion area
DESELECT ALL	**:** clear all motion block
SELECT ALL	**:** select all motion block
RESTORE	**:** restore previous motion setting
SENS	**:** sensitivity option : LOW, MID, HIGH, CUSTOM
LEVEL	**:** customize level sensitivity
AREA	**:** customize spatial sensitivity
OK	**:** finish, save the setting and exit the detection menu



**Note: option position will be different in RX368_V2 / RX3616_V2*

5. Select **[ACTION]** option and press "**Enter**" Enter button to select alarm trigger or tamper action. (For action, please refer to Event Action Part in Advance Operation Section of User Guide)



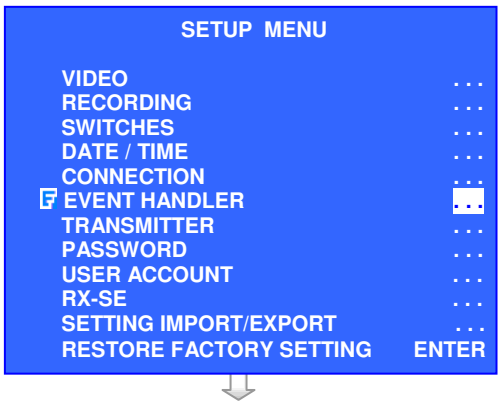
5. Video Loss

Video Loss

Video loss can be triggered when the video channel input disappears and happens if the video recording server receives no signal from the camera. The local CCTV monitor displays a blue screen for video loss condition.

Video Loss Setup Procedure

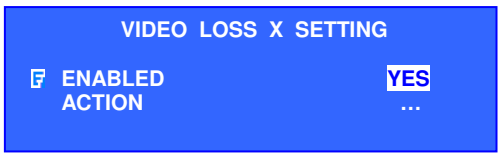
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button.



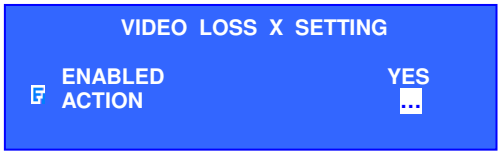
2. Select **[VIDEO LOSS]** option and press "**Enter**" Enter button to show the camera selection menu.

   Select a camera and press "**Enter**" Enter button to enter the video loss setting menu.

3. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) video loss event handler.



4. Select **[ACTION]** option and press "**Enter**" Enter button to select alarm trigger or tamper action. (For action, please refer to Event Action Part in Advance Operation Section of User Guide)



Event Handling

6. System Tamper

System Tamper Input

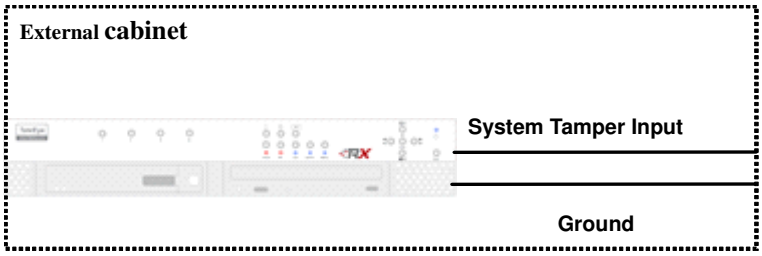
It is an input to the video recording server for wiring a tamper switch of the external cabinet outside the video recording server and its accessories. The purpose of system tamper event is to prevent someone to break into the cabinet and destroy the video recording server.

Sensor Type

The system tamper input circuit type is normal close (NC). When the state of the circuit is closed, it indicates normal of **CAMERIO RX**. Otherwise, when the state of the circuit is opened, it indicates system tamper of **CAMERIO RX**. The system tamper input circuit type is normal open (NO). When the state of the circuit is opened, it indicates normal of **CAMERIO RX**. Otherwise, when the state of the circuit is close, it indicates system tamper of **CAMERIO RX**.

Physical Configuration for System Tamper

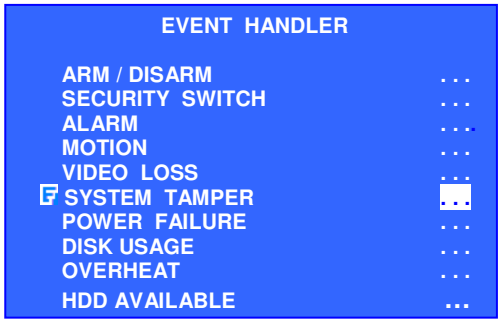
The system tamper input and ground of **CAMERIO RX** video recording server need to connect to an external cabinet which is used for protecting the video recording server and its accessories



System Tamper Setup Procedure

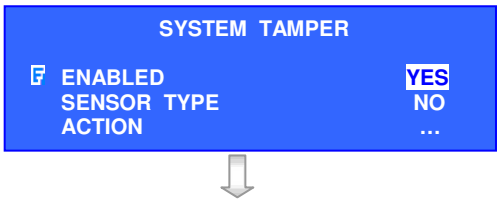
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button.

2. Select **[SYSTEM TAMPER]** option and press "**Enter**" Enter button to show the system tamper menu and press "**Enter**" Enter button to enter the System Tamper setting menu.

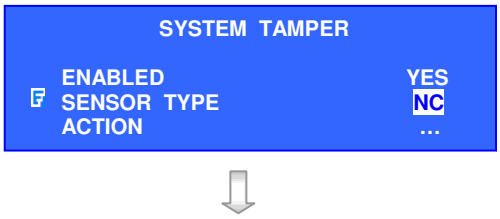


Event Handling

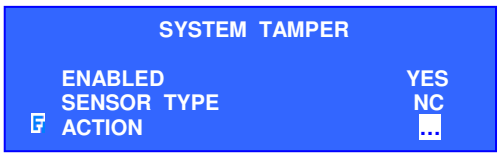
3. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) System Tamper event handler.



4. Select **[SENSOR TYPE]** option and use "**Left**" or "**Right**" button to choose sensor type according to the configuration of **CAMERIO RX** system tamper control circuit type



5. Select **[ACTION]** option and press "**Enter**" button to select system tamper action. (For action, please refer to Event Action Part in Advance Operation Section of User Guide)



7. Power Failure

Power Failure Input

It is an input to the video recording server typically used for wiring the output signal pin from an **uninterruptible power supply (UPS)**.

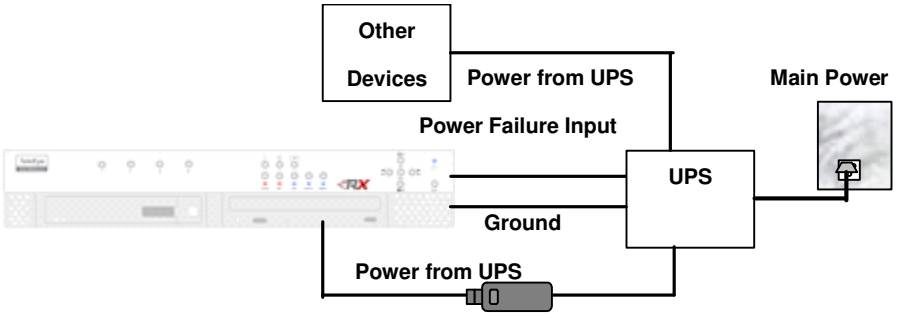
Sensor Type

The power failure input circuit type is normal close (NC). When the state of the circuit is closed, it indicates normal of **CAMERIO RX**. Otherwise, when the state of the circuit is opened, it indicates power failure of **CAMERIO RX**. The power failure input circuit type is normal open (NO). When the state of the circuit is opened, it indicates normal of **CAMERIO RX**. Otherwise, when the state of the circuit is closed, it indicates power failure of **CAMERIO RX**.

Physical Configuration for Power Failure Input

The power failure input and ground of **CAMERIO RX** video recording server need to connect to a universal power supply circuit UPS, so the video recording server can detect any power failure condition.

Note: The UPS circuit setup below is used as an example. Not all UPS have signal output. Some UPS have self-test for a period of time. Their signal output may toggle during test.

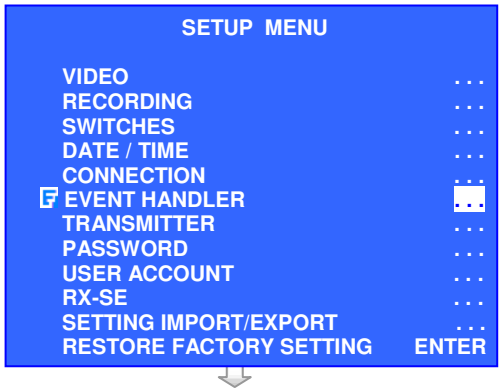


UPS provides backup power in certain period and send a power failure signal to RX when the main power does not work.

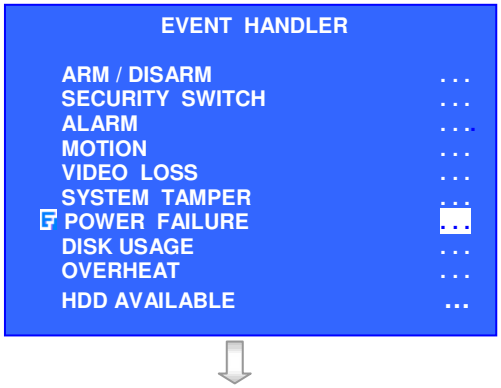
Event Handling

Power Failure Setup Procedure

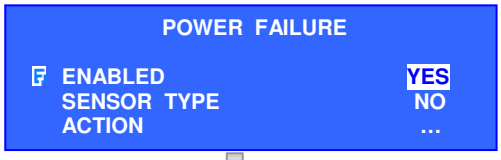
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button.



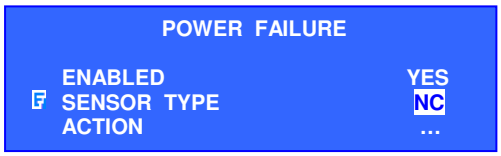
2. Select **[POWER FAILURE]** option and press "**Enter**" Enter button to enter the power failure setting menu.



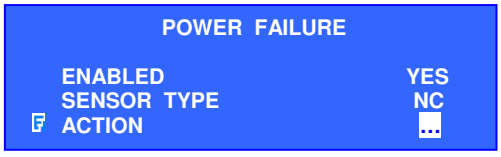
3. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) power failure event handler.



4. Select **[SENSOR TYPE]** option and use "**Left**" or "**Right**" button to choose sensor type according to the configuration of **CAMERIO RX** power failure control circuit type



5. Select **[ACTION]** option and press "**Enter**" Enter button to select power failure action. (For action, please refer to Event Action Part in Advance Operation Section of User Guide)



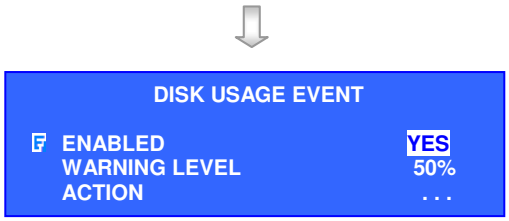
Event Handling

8. Disk Usage

Disk usage event will be triggered if hard disk usage exceeds user specified warning level. The warning level consists of 6 levels : 50%, 60%, 70%, 80%, 90% and 100%. If the hard disk usage achieves the warning level, the disk usage event will be triggered.

Disk Usage Event Setup Procedure :

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button. Select **[DISK USAGE]** option and press "**Enter**" Enter button to show disk usage setting menu.



2. Select **[ENABLED]** and set **[YES]** to enable disk usage event. Select **[WARNING LEVEL]** to choose the suitable disk usage warning level. Select **[ACTION]** option and press "**Enter**" Enter button to select disk usage action.

9. Overheat

Overheat event will be triggered if video recording server gets overheat.

Overheat Event Setup Procedure :

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button. Select **[OVERHEAT]** option and press "**Enter**" Enter button to show overheat setting menu.

2. Select **[ENABLED]** and set **[YES]** to enable overheat event. Select **[ACTION]** option and press "**Enter**" Enter button to select overheat action.

Event Handling

10. HDD Available

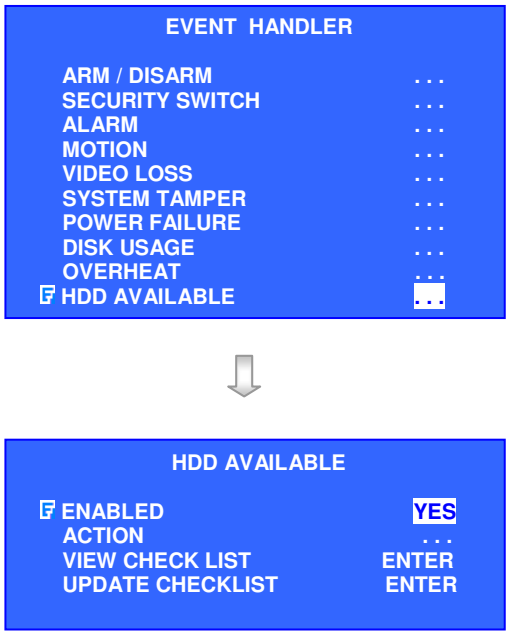
HDD available event will trigger when hard disk failure or hard disk change according to checklist.

HDD Available Event Setup Procedure :

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button. Select **[HDD AVAILABLE]** option and press "**Enter**" Enter button to show overheat setting menu.

2. Select **[ENABLED]** and set **[YES]** to enable HDD available event. Select **[ACTION]** option and press "**Enter**" Enter button to select overheat action.

3. Checklist will automatically update according to current system's hard disk combination when enable this event.
4. Select **[UPDATE CHECKLIST]** to manually update hard disk check list. Or select **[VIEW CHECKLIST]** to view the current checklist. It will show the number of HDD to be checked .

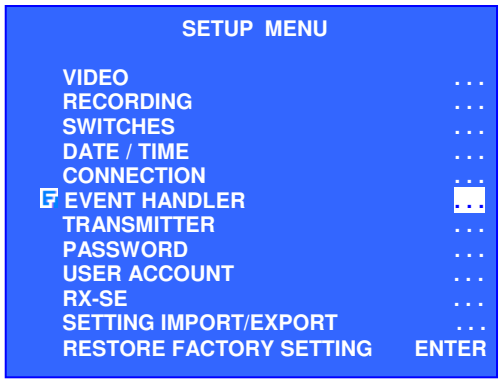


E. Event Action

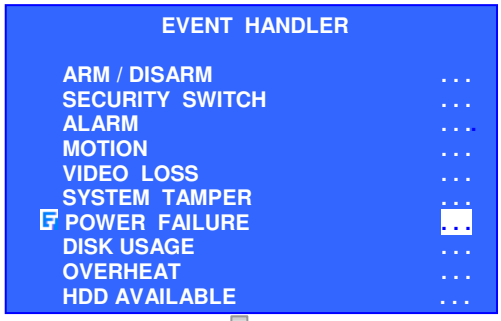
CAMERIO RX supports event actions such as Recording, Switch, Dialback, Email, Buzzer, Event LED, Live camera and PTZ when there is an event detected from alarm, tamper of alarm, motion, video loss, tamper of arm/disarm, tamper of security switch, power failure, disk usage, overheat and system tamper.

Event Action Setup Procedure

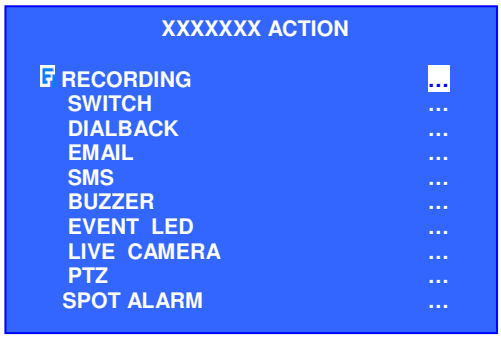
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button.



2. Select **any event** option and press "**Enter**" Enter button to enter the setting menu.



3. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) event handler.
4. Select **[ACTION]** option and press "**Enter**" Enter button to enter the action menu.



1. Recording

Recording
If an event is triggered, recording can record the video content at user selected camera with selected recording mode.

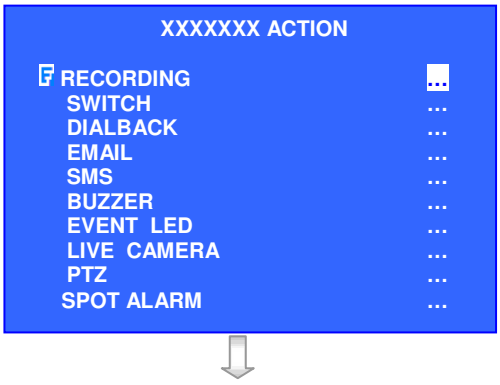
Pre-Alarm Recording
Pre-alarm recording allows video recording before an event is triggered. The period of pre-alarm recording is at least 1 minute (not more than 2 minutes) before the event trigger. User can find that there is at least 1 minute more video content in **[RECORDING LOG MENU]** before event trigger.

Duration After Event Clear
After event is reset, the recording action will stop after the duration time.

Recording Mode
Event recording provides 2 recording mode, 1 frame per second (1 FPS) and continuous mode. In 1 FPS mode, the recording frame rate is less, so the storage size is smaller. In continuous mode, the recording frame rate depends on the number of recording camera and more than 1 FPS, so the storage size is larger.

Recording Action Setup Procedures

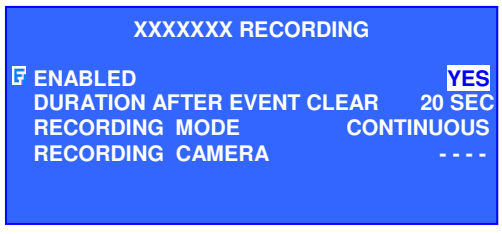
1. In the action menu, select **[RECORDING]** option and press "**Enter**" Enter button to enter the recording action setting menu.



2. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) recording action.

3. Select the **[DURATION AFTER EVENT CLEAR]** and **[RECORDING MODE]** options and uses the "**Left**" or "**Right**" button to choose the suitable setting.

4. Select **[RECORDING CAMERA]** option and press "**Enter**" Enter button to enter the recording camera menu.



Event Action

5. Use the "**Left**" or "**Right**" button to select camera and press the "**Up**" or "**Down**" button to enable or disable recording camera.

6. Press "**Enter**" Enter button to save the camera setting and go back to recording action menu.

7. You can press "**Live**" Live button to exit OSD menu or press "**Back**" Back button to enter action menu again.

2. Switch

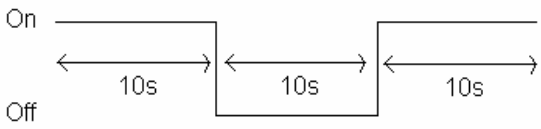
Switch allows video recording server to control 4 external relays which are defined by user.

Switch Type
Switch has 2 types. They are latching or push-button type. In latching type, the switch turns on for a period of time. In push-button type, the switch turns on and off after 1 second.

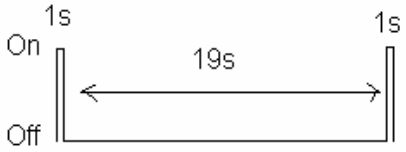
Latching Duration
The latch duration period is the time for turning on the switch.

Action Delay
The delay is the period of time after turning off the switch before next turning on.

Latching Duration and Action Delay Example
For latch type switch, set latch duration to be 10sec and action delay to be 10sec. If an event is triggered, the status of the switch is shown on the right.



For push-button type switch, set latch duration 10sec and action delay 10sec. If an event is triggered, the status of the switch is shown on the right.



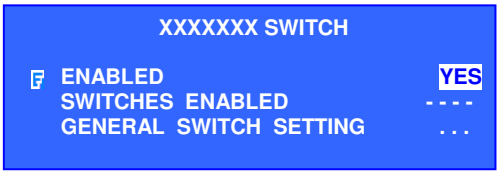
Event Action

Switch Action Setup Procedure

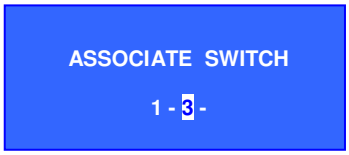
1. In the action menu, select **[SWITCH]** option and press "**Enter**" Enter button to enter the switch action setting menu.

2. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) switch action.

3. Select **[SWITCHES ENABLED]** option and press "**Enter**" Enter button to enable or disable the switches.

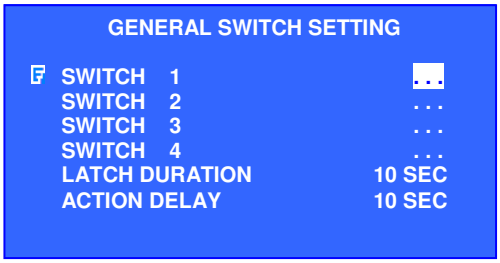


4. Use the "**Left**" or "**Right**" button to select switch and press the "**Up**" or "**Down**" button to enable or disable switch.



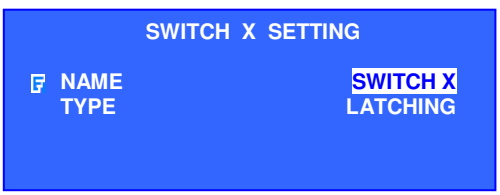
5. Press "**Enter**" Enter button to save the selection setting and go back to switch action menu.

6. Select **[GENERAL SWITCH SETTING]** option and press "**Enter**" Enter button to enter the switch setting menu.



7. Select **[SWITCH (No.)]** option and press "**Enter**" Enter button to enter the switch (No.) setting menu.

8. Select **[NAME]** option and press "**Enter**" Enter button to edit the name of switch (No.).



9. Select **[TYPE]** option and press the "**Left**" or "**Right**" button to choose the switch type.

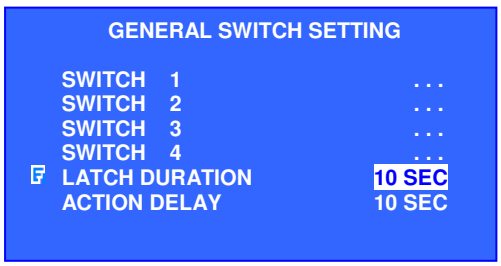
Press the "**Back**" Back button to go back the general switch setting menu and save the setting.

Event Action

10. Select **[LATCH DURATION]** option and press the "**Left**" or "**Right**" button to choose the latch duration.

11. Select **[ACTION DELAY]** option and press the "**Left**" or "**Right**" button to choose the switch action delay between each on/off.

12. You can press "**Live**" button to exit OSD menu or press "**Back**" button to enter action menu again.



3. Dialback

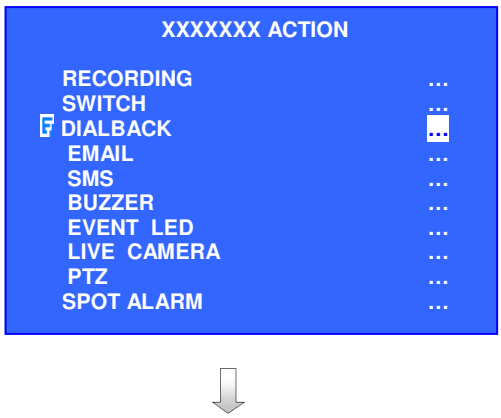
Dialback allows the video recording server to connect to one remote PC and displays live video if an event is triggered. Through the support for different connection methods, such as TCP/IP, modem, null modem and leased line modem. As a result, remote operator can recognize what situation is at the surveillance area.

Retry Duration
The retry duration is the period between each dialback retrial (in second).

Retry Count
The retry count is the number of dialback retrial if dialback fails.

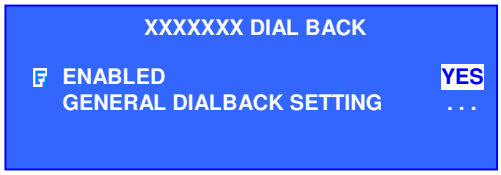
Dialback Action Setup Procedure

1. Press "**Menu**" button, select **[SETUP]** option and press "**Enter**" button to enter **[SETUP]** sub menu. Select **[EVENT HANDLER]** option and press "**Enter**" button. Select an event and press "**Enter**" button to show event setting menu. Enable the event, select **[ACTION]** and press "**Enter**" button, then select **[DIAL BACK]** and press "**Enter**" button to enter dial back setting menu.

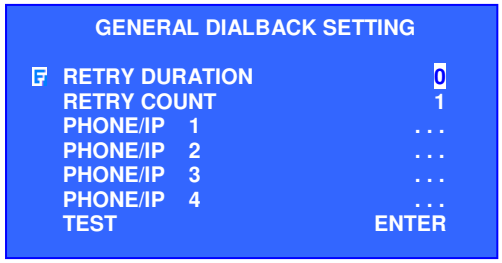


Event Action

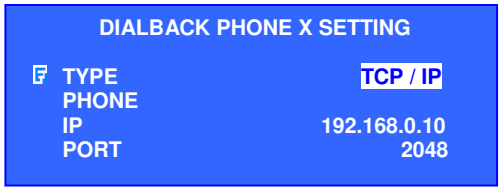
2. Select **[ENABLED]** and set **[YES]** to enable dial back action. Select **[GENERAL DIALBACK SETTING]** option and press "**Enter**" Enter button to select other dial back action settings.



3. Select **[RETRY DURATION]** or **[RETRY COUNT]** to choose dial back retry duration and retry count respectively. Select **[PHONE (No.)]** and press "**Enter**" Enter button to input the dial back address for different connection methods.



4. User can select **[TYPE]** for different connection methods: TCP/IP, modem and null/leased modem. For TCP/IP connection, user needs to input the dial back IP address and port no. in **[IP]** and **[PORT]**

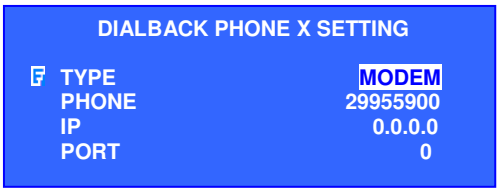


5. Select **[IP]** option and press "**Enter**" Enter button to set IP. Use "**Left**" or "**Right**" button to select field and use "**Up**" or "**Down**" button to set number. Press "**Enter**" Enter button to save the change and return to previous menu.

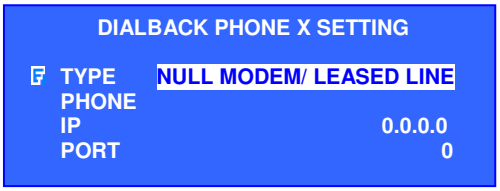
6. Select **[PORT]** option and press "**Enter**" Enter button to set port. Use "**Left**" or "**Right**" button to select field and use "**Up**" or "**Down**" button to set number. Press "**Enter**" Enter button to save the change and return to previous menu.

Event Action

7. For modem connection, user needs to input the dial back phone number in **[PHONE]** option.

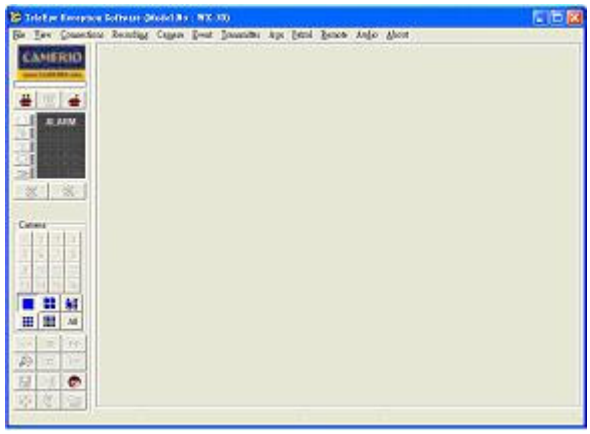


8. For null modem / leased line modem connection, user does not need to input any IP or phone numbers.



9. You can press "**Live**" button to exit OSD menu or press "**Back**" button to enter action menu again.

10. Run **WX-30** software at the local network PC. (For details of WX-30 software installation, please refer to WX-30 Software Guide)



11. Press **[Alarm Standby]** icon for activating dialback action standby

12. **[Alarm Password]** message broad pops up. Enter alarm password and press **[OK]** icon

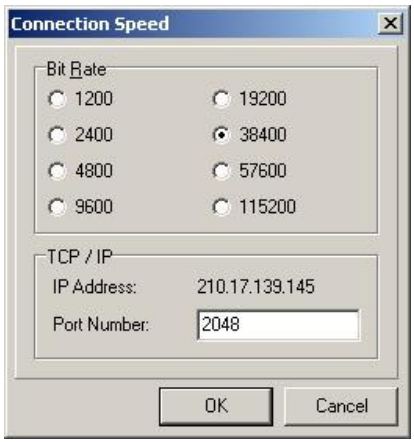
(Default alarm password of WX-30 is 000000)

Event Action

13. Press the icon to select the connection type for dialback

14. Press the icon to enter **[Connection Speed]** message broad to select bit rate, port number. The port number **should be as same as** the port number set in **step 8**

15. Press **[OK]** icon to exit and save the settings



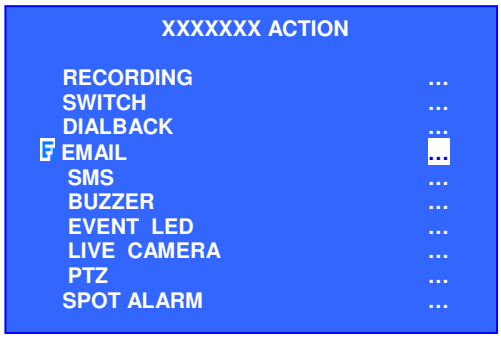
4. Email

Email action supports user to send emails to recipient addresses in order to notice the event trigger status.

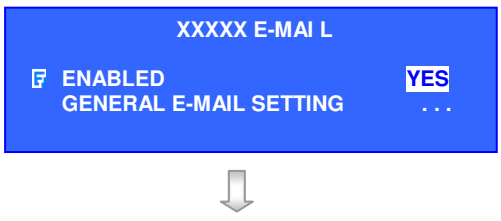
Email Setup Procedure :

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu.

2. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button. Select an action and press "**Enter**" Enter button to show event setting menu. Select **[ACTION]** option and press "**Enter**" Enter button, then select **[E-MAIL]** option and press "**Enter**" Enter button to enter email setting menu.

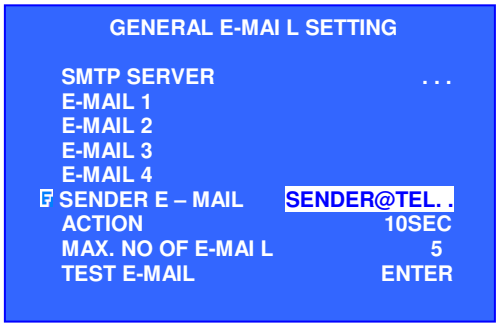


3. Select **[ENABLED]** and set **[YES]** to enable email action. Select **[GENERAL E-MAIL SETTING]** option and press "**Enter**" Enter button to select other email action settings.

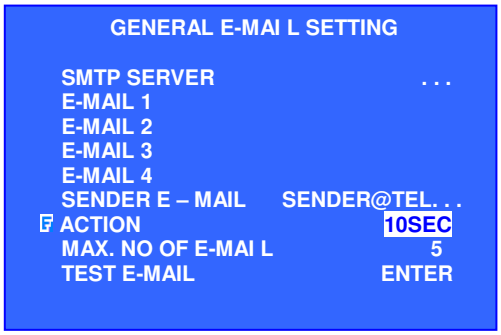


Event Action

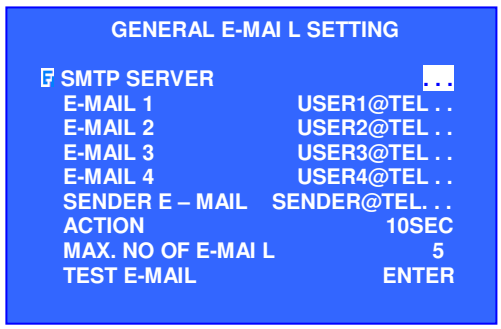
4. Select **[SENDER E-MAIL]** and press "**Enter**" Enter button to input the sender e-mail address.



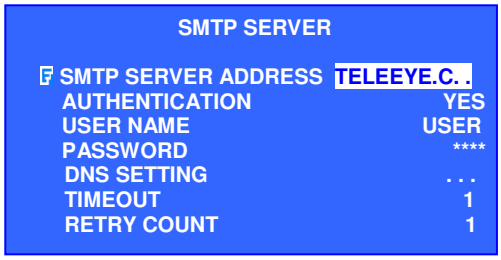
5. Select **[E-MAIL (No.)]** and press "**Enter**" Enter button to input the recipient address for email action. Select **[ACTION]** to set the action delay for email action. Select **[MAX. NO OF E-MAIL]** to set the maximum number of email for an event trigger.



6. Select **[SMTP SERVER]** and press "**Enter**" Enter button to input the SMTP server settings.

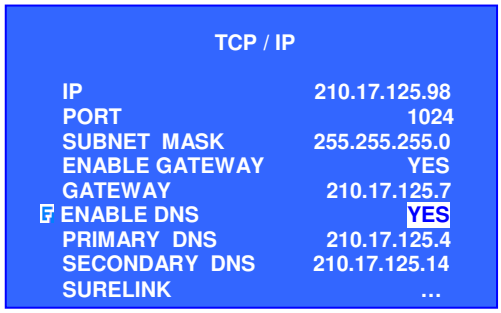


7. Choose **[SMTP SERVER ADDRESS]** press "**Enter**" Enter button to input the SMTP server address. Use "**Left**" or "**Right**" button to select SMTP server timeout time and send mail retry number.
8. If the SMTP server needs authentication, please select **[AUTHENTICATION]** and set **[YES]** to enable authentication. Input **[USER NAME]** and **[PASSWORD]** for authentication.



Event Action

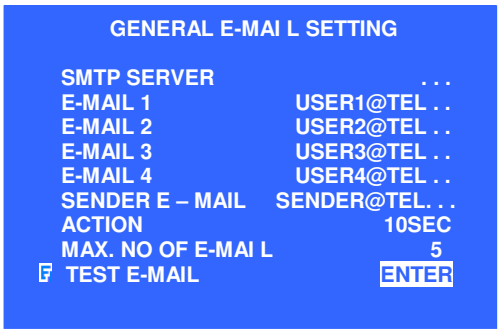
9. DNS setting must be set for SMTP server. Choose **[DNS SETTING]** in SMTP server OSD menu and press "**Enter**" Enter button to enter TCP/IP menu as shown.



10. Set the **[ENABLE DNS]** option to yes and input the primary DNS and secondary DNS setting in **[PRIMARY DNS]** and **[SECONDARY DNS]** option.

11. After changing the DNS setting, press "**Live**" Live button or "**Back**" Back button several times to exit the OSD menu and **RX** video recording server will pop up a restart message. Press "**Enter**" Enter button to restart the video recording server.

12. After restart the **RX** video recording server, go back the **[GENERAL E-MAIL SETTING]** menu to test the email. Select the **[TEST E-MAIL]** option and press "**Enter**" Enter button to test the email, a test mail will be sent to each of the e-mail addresses.

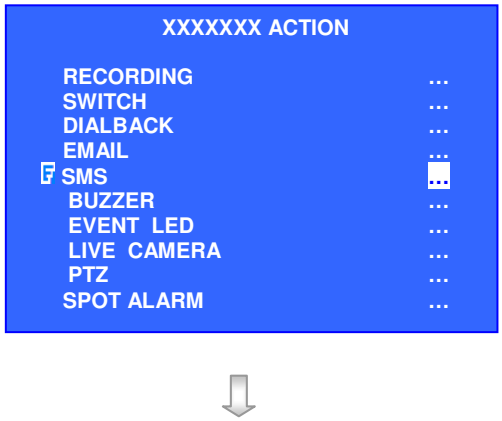


5. SMS

SMS action supports user to send short message to mobile user in order to notice the event trigger status.

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu.

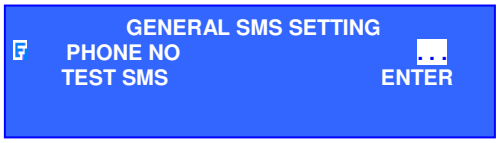
2. Select **[EVENT HANDLER]** option and press "**Enter**" Enter button. Select an action and press "**Enter**" Enter button to show event setting menu. Select **[ACTION]** option and press "**Enter**" Enter button, then select **[SMS]** option and press "**Enter**" Enter button to enter SMS setting menu.



Event Action

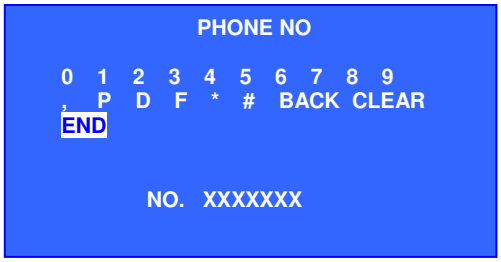
5. Select **[ENABLED]** and set **[YES]** to enable SMS action. Select **[GENERAL SMS SETTING]** option and press "**Enter**" Enter button to enter SMS action settings.

6. Select **[PHONE NO]** and press "**Enter**" Enter button to input the SMS receiver phone number. One phone number is allowed.



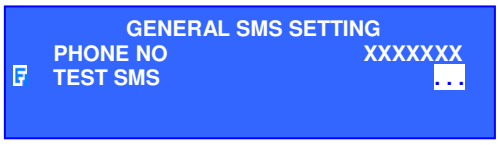
7. Input the receiver phone number. Select **[END]** and press "**Enter**" Enter button to save the phone number.

Note: The phone number should include the district code.



8. Select **[TEST SMS]** and press "**Enter**" Enter button to test the SMS number. A short message will send to mobile user.

Note: This function is supported only after the SMS box installed.



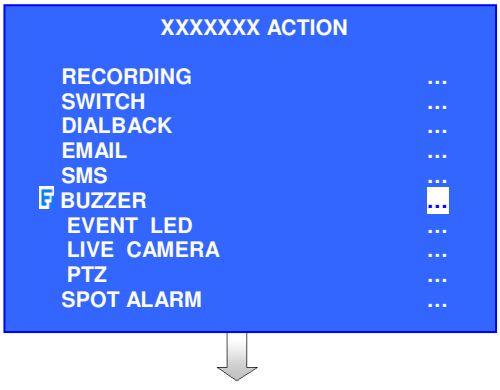
6. Buzzer

The built-in buzzer can give "**Beep**" sound that draws nearby operator's attention when event is triggered.

Duration is the period for turning on the buzzer and **Action delay** is the period after turning off the buzzer turning on.

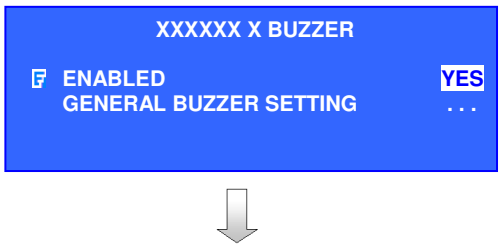
Buzzer Action setup procedure

1. In the action menu, select **[BUZZER]** option and press "**Enter**" Enter button to enter the buzzer action setting menu.



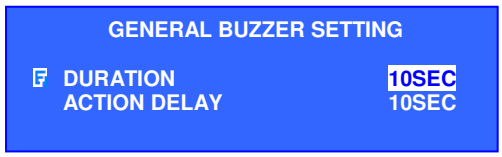
Event Action

2. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) buzzer action.

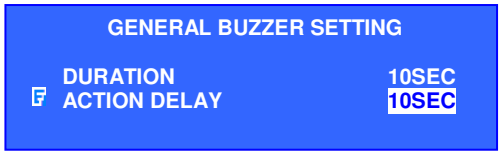


3. Select **[GENERAL BUZZER SETTING]** option and press "**Enter**" Enter button to enter the buzzer setting menu.

4. Select **[DURATION]** option and press the "**Left**" or "**Right**" button to choose the duration.



5. Select **[ACTION DELAY]** option and press the "**Left**" or "**Right**" button to choose the action delay



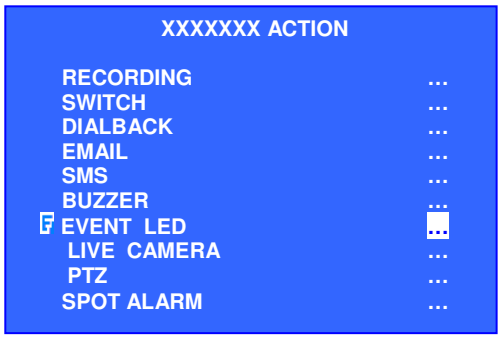
6. You can press "**Live**" Live button to exit OSD menu or press "**Back**" Back button to enter action menu again.

7. Event LED

The event LED is the LED built on the front panel of **CAMERIO RX** video recording server Event. If an event is triggered, the LED is blinking until the event is cleared.

Event LED Action setup procedure

1. In the action menu, select **[EVENT LED]** option and press "**Enter**" Enter button to enter the event LED action setting menu.



Event Action

2. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) event LED action.

3. You can press "**Live**" button to exit OSD menu or press "**Back**" button to enter action menu again.

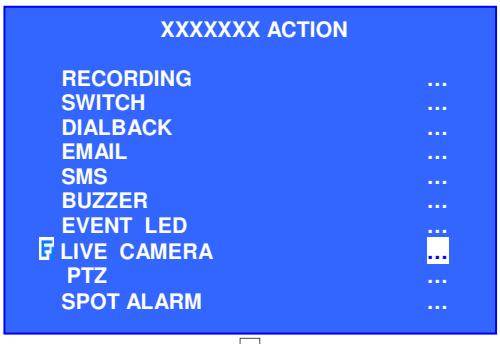
8. Live Camera

Live Camera

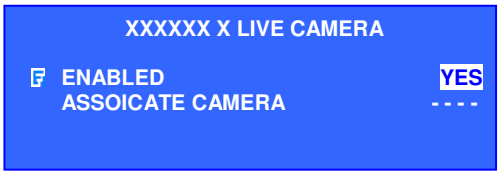
Event associated live camera displays real time live video of pre-selected camera if an event is triggered, so operator can immediately know what is happening at the site. Live camera action can only display live video one time before user clears the event.

Live Camera Action setup procedure

1. In the action menu, select **[LIVE CAMERA]** option and press "**Enter**" button to enter the live camera action setting menu.



Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) live camera action.



2. Select **[ASSOCAITE CAMERA]** option and press "**Enter**" button to enter the live camera action setting menu. Use the "**Left**" or "**Right**" button to select camera and press the "**Up**" or "**Down**" button to enable or disable camera.

Press "**Enter**" button to save the camera setting and go back to live camera action menu.

3. You can press "**Live**" button to exit OSD menu or press "**Back**" button to enter action menu again.

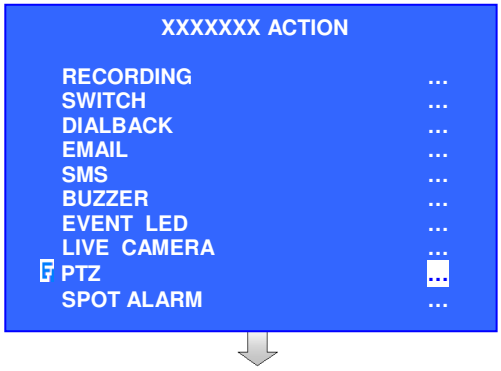
Event Action

9. PTZ

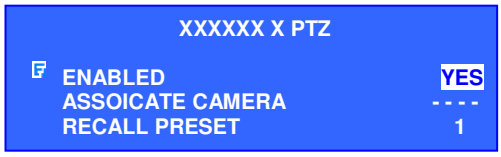
PTZ camera action allows the pan tilt zoom camera to go to user preset position for viewing what happen if an event has been triggered.

PTZ Action setup procedure

1. In the action menu, select **[PTZ]** option and press "**Enter**" Enter button to enter the PTZ action setting menu.

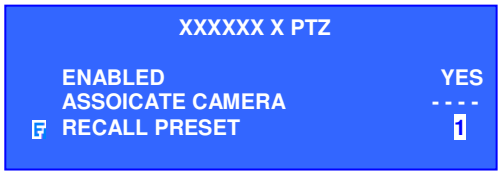


2. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) PTZ action.



3. Select **[ASSOCAITE CAMERA]** option and press "**Enter**" Enter button to enter the PTZ action setting menu. Use the "**Left**" or "**Right**" button to select camera and press the "**Up**" or "**Down**" button to enable or disable camera. Press "**Enter**" Enter button to save the camera setting and go back to PTZ action menu.

4. Select **[RECALL PRESET]** option and use the "**Left**" or "**Right**" button to select camera and press the "**Up**" or "**Down**" button to choose the preset position of the PTZ camera.



5. You can press "**Live**" Live button to exit OSD menu or press "**Back**" Back button to enter action menu again.

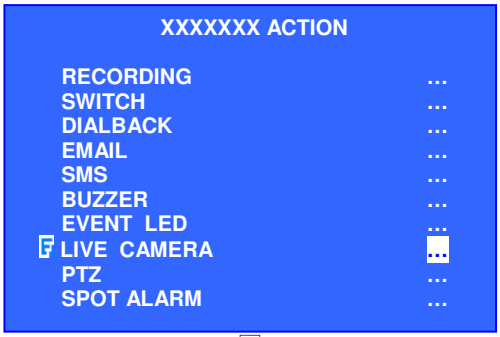
Event Action

10. Spot alarm

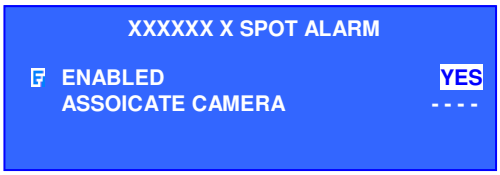
Spot alarm displays real time live video of pre-selected camera when event triggered, so operator can immediately know what is happening at the site. If more than one associated camera is selected, Spot alarm will change to switch mode.

Spot alarm setup procedure

1. In the action menu, select **[SPOT ALARM]** option and press "**Enter**" Enter button to enter the live camera action setting menu.



2. Select **[ENABLED]** option and use "**Left**" or "**Right**" button to enable (i.e. set the value to **[YES]**) live camera action.



3. Select **[ASSOCAITE CAMERA]** option and press "**Enter**" Enter button to enter the live camera action setting menu. Use the "**Left**" or "**Right**" button to select camera and press the "**Up**" or "**Down**" button to enable or disable camera.

   Press "**Enter**" Enter button to save the camera setting and go back to live camera action menu.

4. You can press "**Live**" Live button to exit OSD menu or press "**Back**" Back button to enter action menu again.

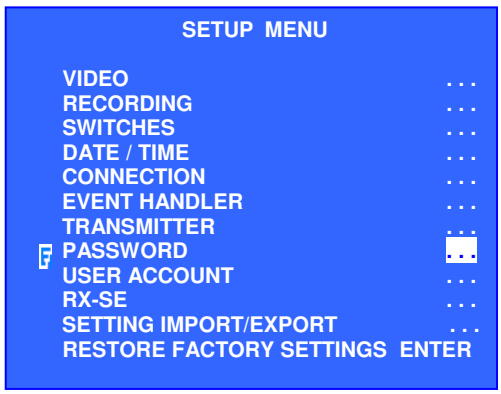
Event Action

F. Password

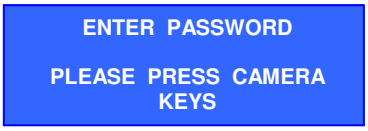
System administrator can setup a password to protect the video recording server from being operated by unauthorized operators.

Password Setup Procedures:

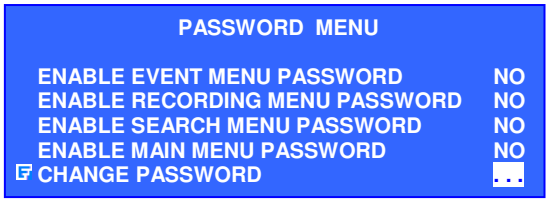
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[PASSWORD]** option and press "**Enter**" Enter button.



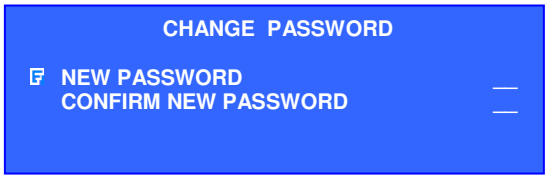
2. Enter the password first by using the "**Live Camera Control Button**". The default password is "**111111**" and press "**Enter**" Enter button.



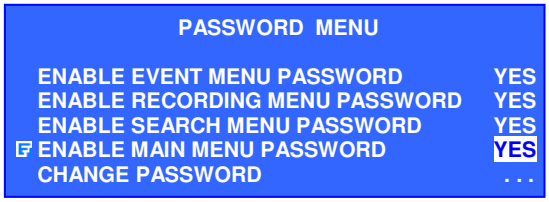
3. User can change the password by selecting **[CHANGE PASSWORD]** option and press "**Enter**" Enter button. It is highly recommended to change the password after the 1st installation immediately.



4. Type a new password using the "**Live Camera Control Button**" on **[NEW PASSWORD]** and retype the same password on **[CONFIRM NEW PASSWORD]**. Press "**Back**" Back button to save and exit the menu.



5. User can enable password protection for event, recording, search and main menu by choosing **[YES]** option.

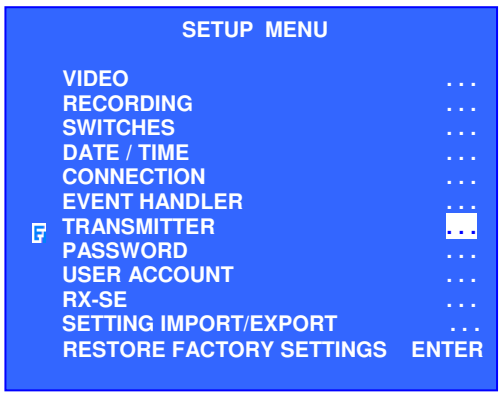


G. Built-In Web Server

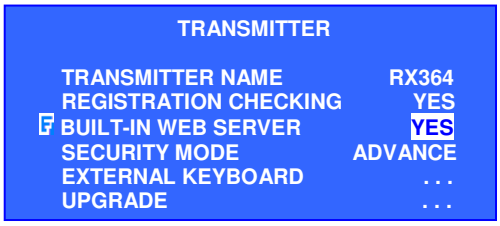
Built-in web server allows user to access and control **CAMERIO RX** video recording server by using web browser, such as MS Internet Explorer. In order to use web server function, user must install **Virtual Machine**, such as Sun Java VM (http://www.java.com).

Built-in Web Server Setup Procedures

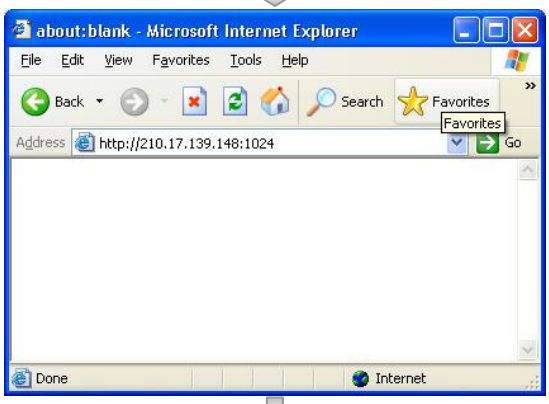
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[TRANSMITTER]** option and press "**Enter**" Enter button to show video recording server setting menu.



2. Select **[BUILT-IN WEB SERVER]** option and set **[YES]** to enable the built-in web server. Press "**Back**" Back button to exit the menu. The video recording server will restart.

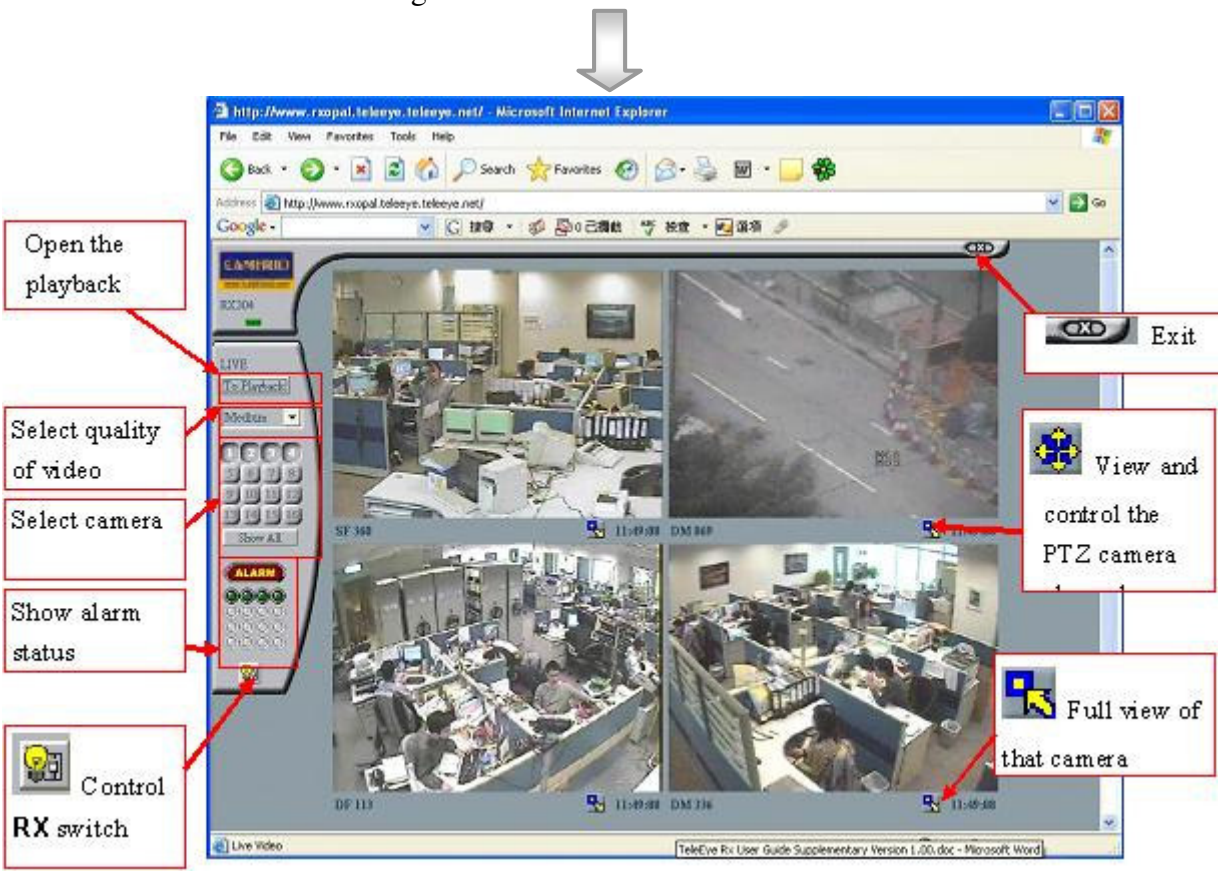


3. After video recording server restarts, open a web browser in your PC as shown. Type the IP address and port number of the video recording server with the format as example below :
http://210.17.139.148:1024
Port number input is optional. If no port number is input, default port number is 80.



4. Type the video recording server password which is same as the administrator password of **CAMERIO Reception Software WX-30**. Choose the connection stream, LAN, broadband or narrowband for the web server connection.

5. User can view the site through the web browser as below :

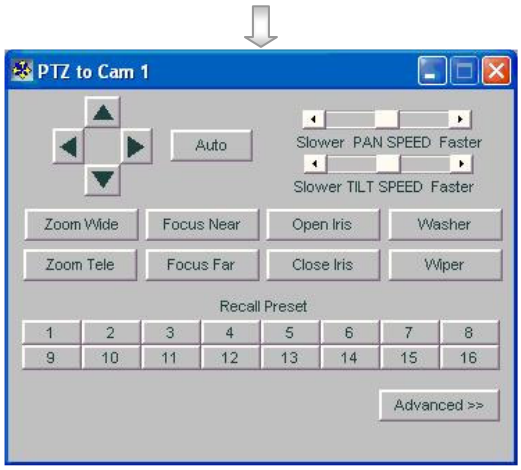


6. Press "**Switch Control**"  button and the switches control menu will pop up as shown.

E.g. Switch 2 and 4 are on and switch 2 and 3 are off.

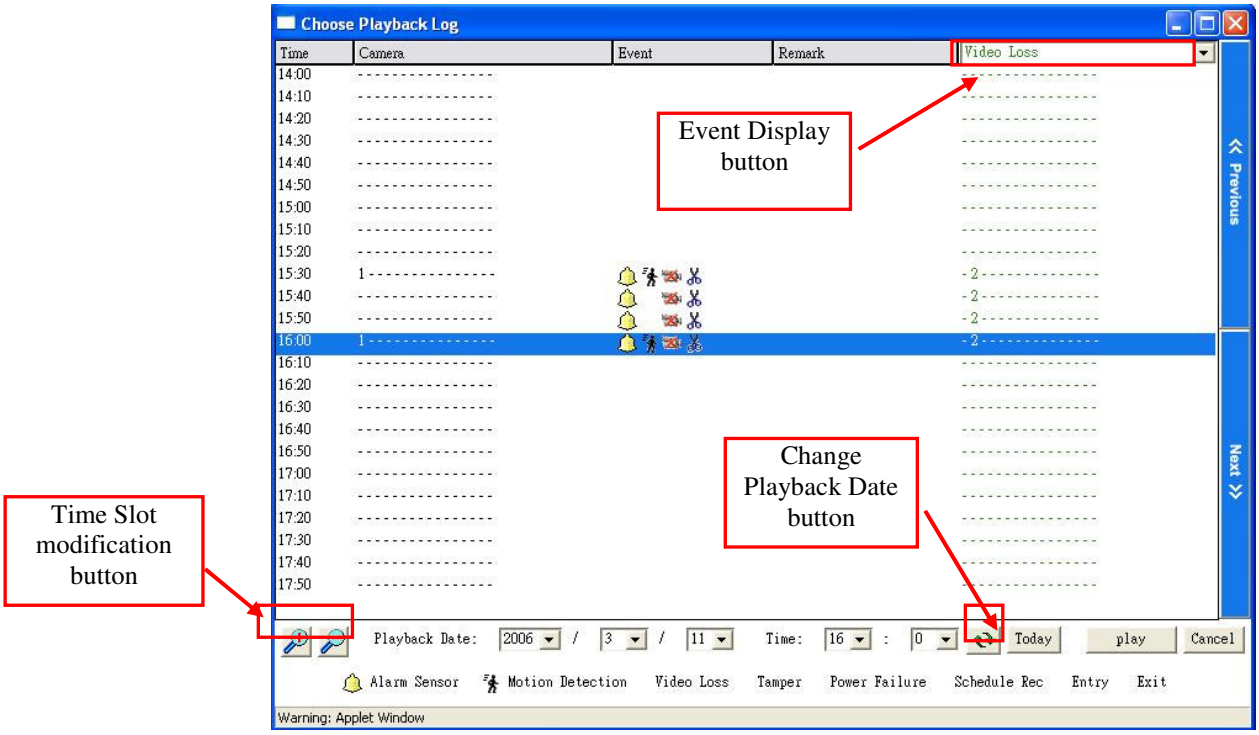
7. Press the "**1, 2, 3 or 4**" button to set the switch of **CAMERIO RX** video recording server on or off.

8. Press "**PTZ**"  button to view and control the PTZ camera. The PTZ control menu will pop up as shown. User can control the PTZ camera in this menu such as Pan, Tilt, Auto and so on.



9. Press "**Advanced**" button to pop up the advance menu for controlling the advance setting of PTZ camera.

10. Press To Playback button to pop up choose playback log menu as shown.



The functions of the buttons:

Time Slot modification button: Change the displaying time slot. will make the time slot smaller while will make the time slot larger.

Change Playback Date button: Change the current time display to the selected time in the boxes provided.

Event Display button: Display the event happened during the time of the corresponding time slot

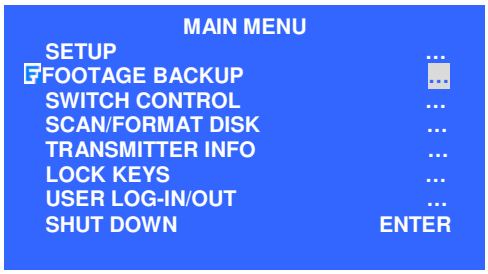
H. Backup to CD / DVD / USB Flash

CAMERIO RX video recording servers support backup footage to CD, DVD and USB Flash. Supported disc type includes: CD-R, CD-RW, DVD+R, DVD-R and DVD+RW. Maximum backup size for CD is 650 MB and 4.7GB for DVD and USB.

Note: A recommended physical size of CD/DVD should be 120mm / 5.25"

Backup to CD / DVD / USB Flash Setup Procedure

1. Press "**Menu**" Menu button, select **[FOOTAGE BACKUP]** option and press "**Enter**" Enter button to enter FOOTAGE BACKUP sub menu.



2. For backup to CD, select **[BACKUP TO CD]** option and press "**Enter**" Enter button to enter backup menu;

   For backup to DVD, select **[BACKUP TO DVD]** option and press "**Enter**" Enter button to enter backup menu;

   For backup to USB, select **[BACKUP TO USB]** option and press "**Enter**" Enter button to enter backup menu;

3. In **[MODE]** option, use "**Left**" **and** "**Right**" buttons to select **[MODE]**.

Note:
All cameras :
- *Extract all recorded video*
- *The total files size is large*

Selected camera :
- *Only selected cameras' recording will be extracted*
- *File size is reduced depend on number of camera selected*

Quick :
- *Extract recording with lower frame rate of selected camera.*
- *No audio will be extracted*

Smallest file size among the 3 modes

Backup to CD / DVD / USB Flash

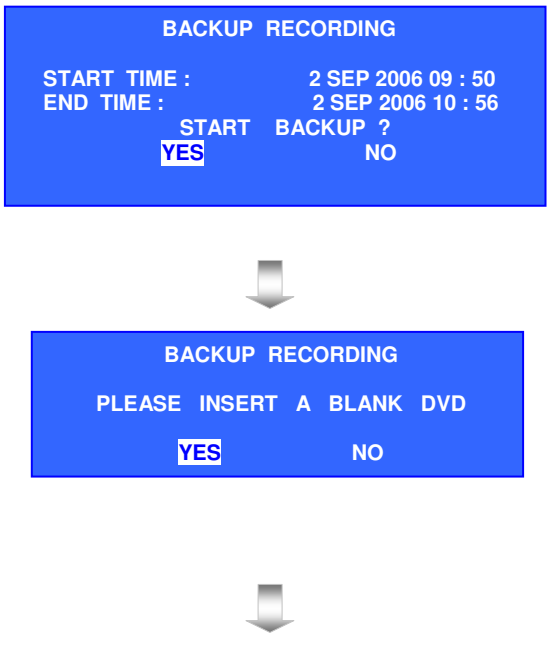
4. In **[START DATE]** and **[START TIME]** option, use "**Enter**" Enter, "**Up**" , "**Down**" , "**Left**" **and** "**Right**" buttons to select the starting date and time of the backup footage.

5. In **[BACKUP PERIOD]** option, use "**Left**" **and** "**Right**" buttons to select desired backup period of the footage. Backup period will according to the **[BACKUP MAX SIZE]** if **MAX SIZE** is selected or size required for the **[BACKUP PERIOD]** exceed the **[BACKUP MAX SIZE]**.

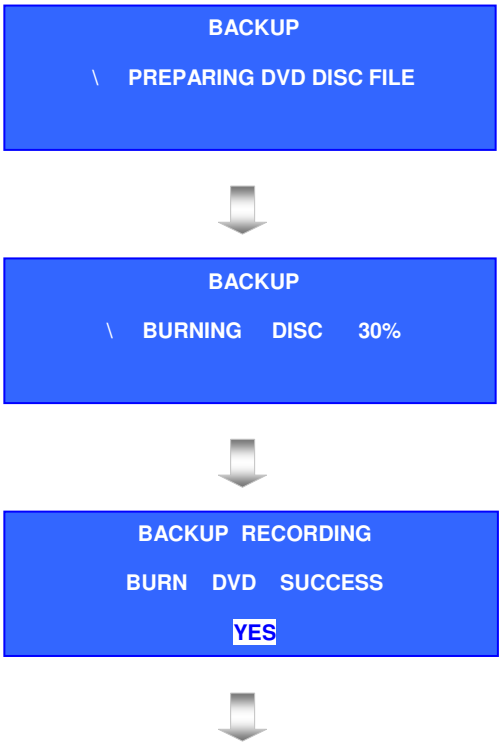
6. Select **[BACKUP MAX SIZE]** option and press "**Enter**" Enter button to setup the maximum backup size by using "**Up**" , "**Down**" , "**Left**" **and** "**Right**" buttons. The maximum size for CD backup is 650MB and 4700MB for DVD

7. Select **[START BACKUP]** option and press "**Enter**" Enter button to show **[BACKUP RECORDING]** message board and it shows user about the **end time**. Select **[YES]** option and press "**Enter**" Enter button to start backup function.

8. When the message pop-up, insert a blank disc into the DVD recorder.



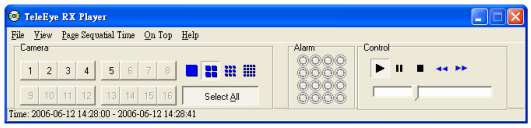
9. During backup process, backup status will show on OSD, i.e. preparing file and burning disc percentage.



10. After finishing the backup process, press "**Enter**" Enter button to exit and the CD/DVD will be ejected.

11. Insert the CD/DVD to PC with window OS and the Portable Player software will pop up automatically.

    Press "**Play**" button for playback in the CD/DVD.

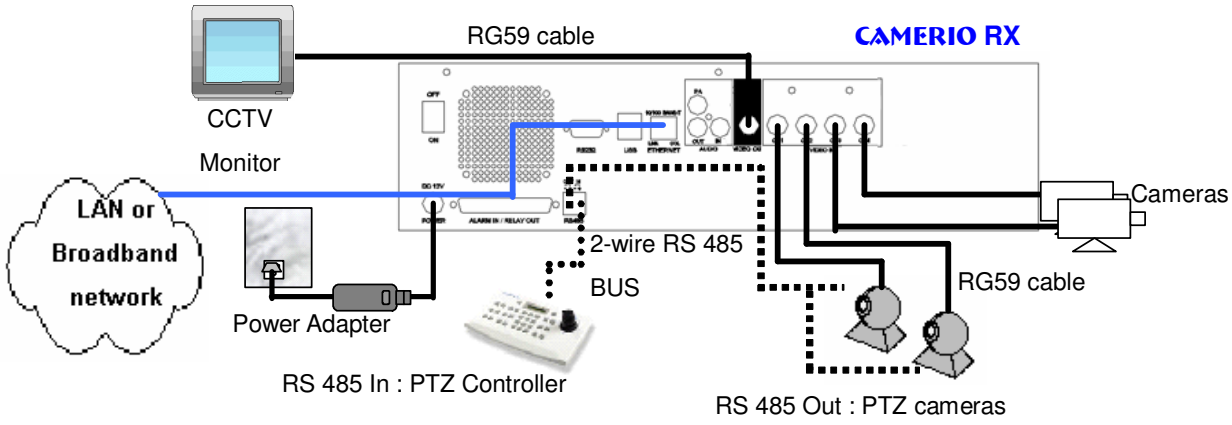


Note 1: For playback from DVD, the PC must be installed with a DVD-ROM, DVD-RW or Combo drive which supports the backup disc type.

Note 2: If the Portable Player software does not pop up automatically, please double click the CD or DVD drive in your PC.

I. Connection with PTZ cameras

As **CAMERIO RX** video recording server built with a RS485 IN and OUT port, you can connect port OUT to Pan/Tilt/Zoom cameras (in parallel) and connect port IN to keyboard controller. The connection diagram is shown below.



Setup Procedure

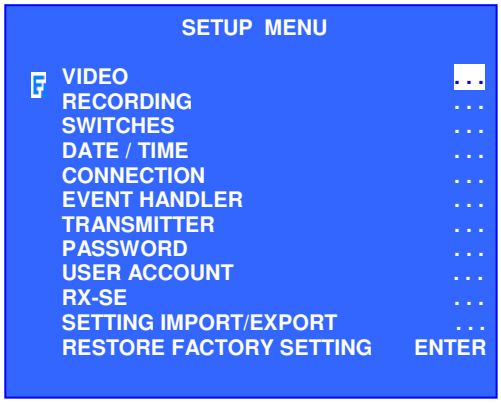
1. Connect the P/T/Z cameras to the RS 485 OUT port in parallel at the **CAMERIO RX** rear panel. Connect the P/T/Z cameras to video input port according to each P/T/Z camera ID. *Note: All P/T/Z cameras should be the same model.*

2. Connect the keyboard controller to the RS 485 IN port at the **CAMERIO RX** rear panel. For keyboard controller setup, please refer to the keyboard controller manual.

3. Configure P/T/Z cameras driver and setting through OSD menu by CCTV monitor.

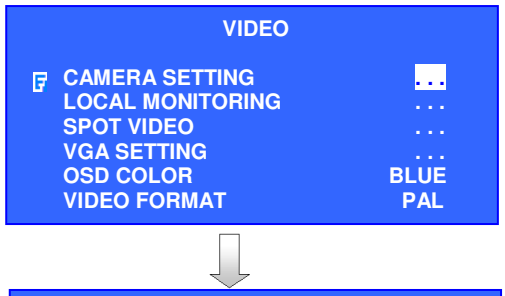
Configure P/T/Z cameras driver and setting as follows:

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[VIDEO]** option and press "**Enter**" Enter button.

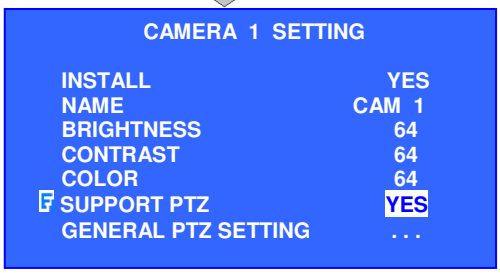


Connection with PTZ cameras

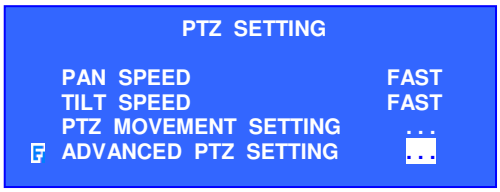
2. Select **[CAMERA SETTING]** option and press "**Enter**" Enter button to enter the camera setting menu. Select **[CAMERA (NO.)]** option and press "**Enter**" Enter button to choose the camera as PTZ camera.



3. Select **[SUPPORT PTZ]** option and use "**Left**" or "**Right**" button to choose **[YES]** option. Select **[GENERAL PTZ SETTING]** option and press "**Enter**" Enter button to set the PTZ feature.



4. Select **[ADVANCED PTZ SETTING]** option and press "**Enter**" Enter button to configure P/T/Z cameras driver and bit rate.

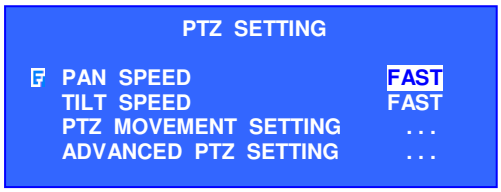


5. Select **[PTZ DRIVER]** option and press "**Enter**" Enter button to select P/T/Z cameras driver. According to the P/T/Z camera model, please select a certain driver for required PTZ camera and press "**Enter**" Enter button to save the setting.

Note: If there is no driver to support your P/T/Z cameras, please refer to WX-30 software upload PTZ driver section

6. Select **[BIT RATE]** option and use "**Left**" or "**Right**" button to set bit rate corresponding to your P/T/Z cameras. Press **"Back"** Back button to go to **[PTZ SETTING]** menu

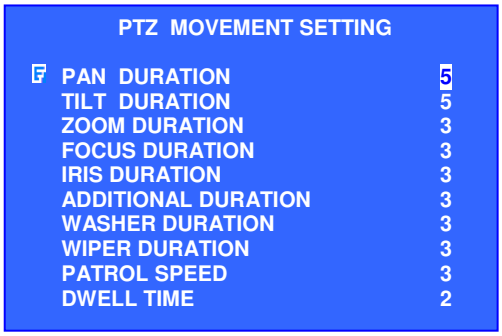
7. Select **[PAN SPEED]** and **[TILT SPEED]** options and use "**Left**" or "**Right**" button to change the pan (**horizontal direction**) and tilt (**vertical direction**) speed of the PTZ camera.



8. Select **[PTZ MOVEMENT]** option and press "**Enter**" Enter button to change PTZ movement timing setting

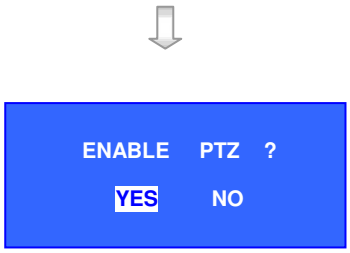
Connection with PTZ cameras

9. User can select different movement direction duration according to whether the PTZ camera supports those functions.



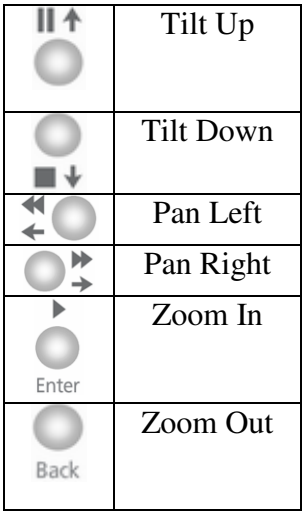
10. Press "**Back**" Back button for several times to exit main menu. Use "**Camera Control**" buttons (as below) to select the PTZ camera.

11. Press "**Live**" Live button to show the PTZ Camera Enable menu.



12. Select **[YES]** option and press "**Enter**" Enter button to enable PTZ function and the **PTZ enable icon** shown at the corresponding PTZ camera in CCTV monitor.

13. Press "**Live**" Live button to enter the PTZ option menu for advance control and disable PTZ camera.



You can use "**control button**" to control PTZ camera.

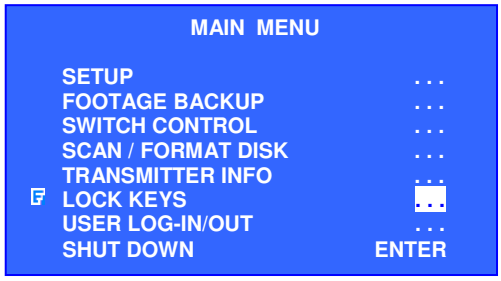
Connection with PTZ cameras

J. Panel Key Lock

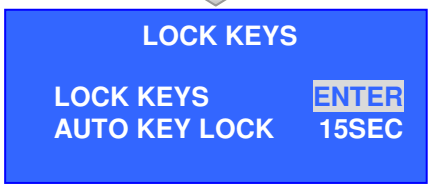
Panel key lock is used to prevent the buttons on the video recording server panel from being pressed carelessly.

Panel Key Lock and Unlock Procedure:

1. Press "Menu" Menu button, select [LOCK KEY] to enter [LOCK KEY] menu.



2. Select [LOCK KEY] option and press "Enter" Enter button to enable the panel key lock.

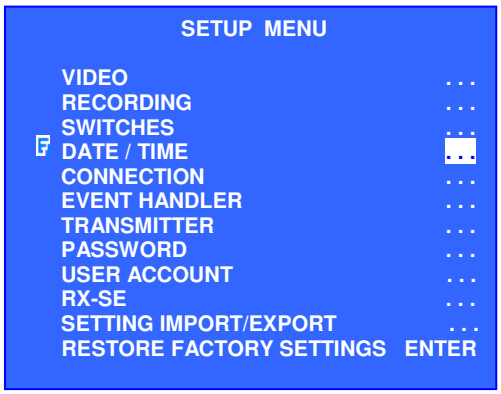


3. In order to unlock the key lock, user should press any keys on the panel. [UNLOCK] message is shown. Choose [YES] to unlock the key lock.

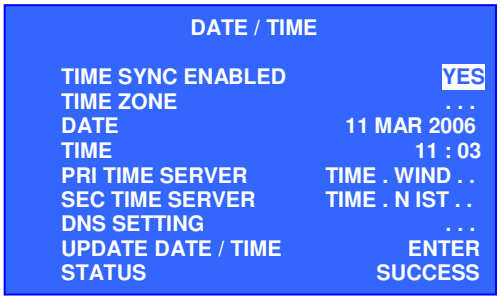
**NOTE: password is required if KEY LOCK PASSWORD is enabled.*

K. Time Synchronization

1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[DATE/TIME]** option and press "**Enter**" Enter button.



2. Select **[ENABLED]** and set **[YES]** to enable dial back action. Select **[DNS]** and press "**Enter**" Enter to set DNS setting. Select **[PRI TIME SERVER]** and press "**Enter**" Enter to set the primary time server address and **[SEC TIME SERVER]** to set the secondary time server address.



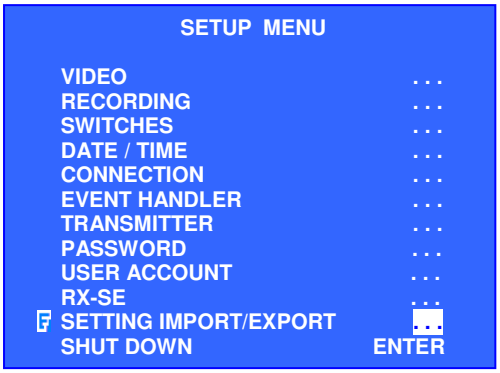
3. Select **[UPDATE DATE / TIME]** and press "**Enter**" Enter to update the date and time with the above setting and the botton line

   - "**STATUS**" indicates the results
   - "**SUCCESS**" means successful update
   - "**WORK-IN-PROGRESS**" means it is trying to update
   - "**CANNOT RESOLVE DNS**" means unsuccessful update and user should check the setting of time server and DNS setting.

L. Import and Export

Import :

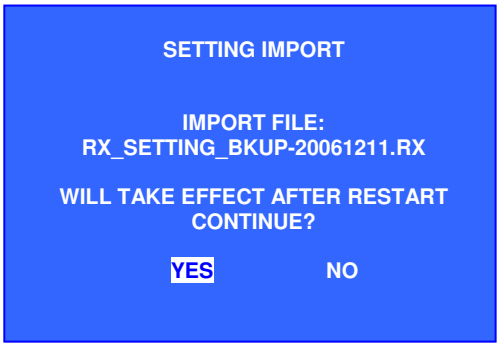
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[SETTING IMPORT/EXPORT]** option and press "**Enter**" Enter button.



2. Select **[IMPORT FROM USE]** option and press "**Enter**" Enter button to start import.

3. Plug the USB flash into USB port. Select [YES] and press "**Enter**" Enter button to start import. The import file name will be "RX_SETTING-BKUP-XXXXXX.RX". "XXXXXX" represents the date. E.g. " RX_SETTING-BKUP-20061211.RX". It will change to the next .rx file if you select [No].

4. Select [YES] and press "**Enter**" Enter button to restart.



Export :

1. Select **[EXPORT TO USB]** option and press "**Enter**" Enter button.

2. Use "**Left**" or "**Right**" button to select the export type. Press "**Left**" or "**Right**" button on [SELECT ALL] if you want to export all type of file to USB. Select [START EXPORT] and press "**Enter**" Enter button.

3. Press "**Enter**" Enter button to start export. The file name will change to " RX_SETTING-BKUP-20061211(2).RX" automatically if a same file name existed before.

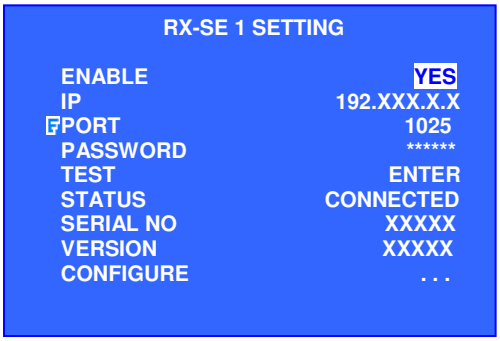
M. RX-SE setting

1. Setup RX-SE and press "**Menu**" Menu button.

   Select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Choose RX-SE and press "**Enter**" Enter button.

2. Select **[RX-SE]** option and press "**Enter**" Enter button to enter the RX-SE setting menu. You can choose different RX-SE number in this setup menu.

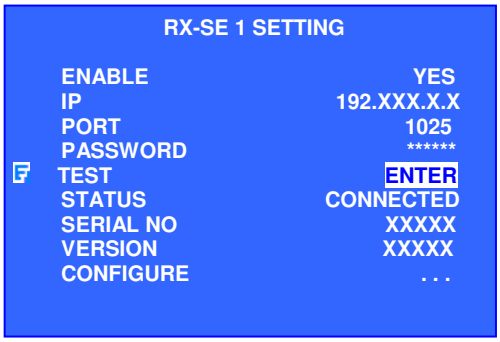
3. Select **[ENABLE]** option and Use "**Left**" or "**Right**" button to select **[YES]** for enable RX-SE setting.



Note:

IP and PORT is the IP address and port number of the RX-SE. IP, PORT and PASSWORD can change here. It will find the RX-SE by this IP address and port number.

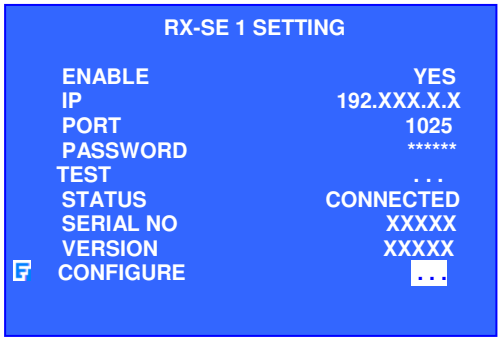
4. Select **[TEST]** option and press "**Enter**" Enter button to test the connection of RX-SE. Result will show in the STATUS. If it shows ERROR or DISCONNECTED, you should check the RX-SE connection and the IP address ,port number or password correct or not. SERIAL NO and VERSION represent the serial number and version of RX-SE. It will show after the RX-SE is connected.



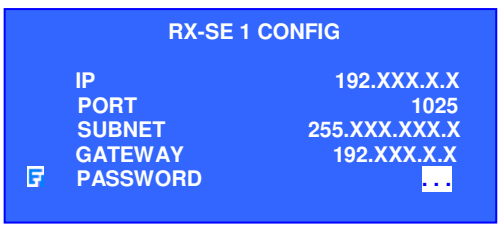
Note:
There are several statuses.

STATUS :	***MEANING :***
DISCONNECTED	*Disconnected*
CONNECTED	*Normal*
INCORRECT PW	*Incorrect password*
SE BUSY	*The RX-SE is in use*
IP/PORT ERROR	*Cannot establish connection*
MOUNT ERROR	*Testing result : HDD error*
READ ERROR	*Testing result : HDD error*
WRITE ERROR	*Testing result : HDD error*
UMOUNT ERROR	*Testing result : HDD error*
VALID	*Tested OK*

5. Select **[CONFIGURE]** option and press "**Enter**" Enter button.



6. Select **[PASSWORD]** option and press "**Enter**" Enter button to change the password.



Note:
RX-SE IP can change here. The IP of RX-SE 1 will change if you input a new IP.

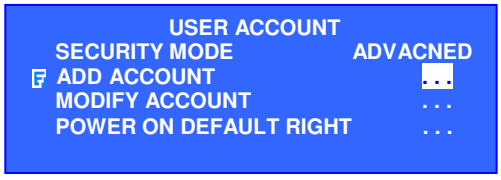
7. Select **[NEW PASSWORD]** option and press "**Enter**" Enter button to change the password.

8. Input the new password and press **[END].** Select **[RE ENTER NEW PASSWORD]** option and press "**Enter**" Enter button in the RX-SE password submenu to confirm the changed password.

N. User account

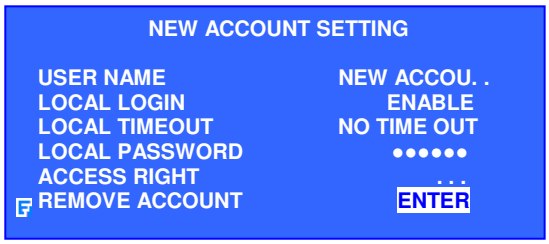
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[USER ACCOUNT]** option and press "**Enter**" Enter button.

2. At **[SECURITY MODE]** select **[ADVANCED]**
3. Enter advanced security mode ADMINISTRATOR local password to change the video recording server security mode.
4. After video recording server restart, repeat Step 1. to **[USER ACCOUNT]** page.
5. Select **[ADD ACCOUNT]** option and press "**Enter**" Enter button to add a new user account. Select **[MODIFY ACCOUNT]** option and

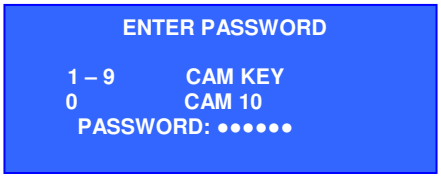


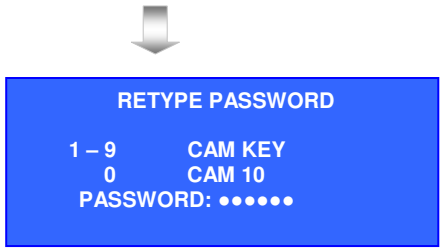
press "**Enter**" Enter button to modify existing user account setting.

6. In **[ACCOUNT NAME]** option, press "**Enter**" Enter button to edit a 4-16 characters account name. (Account name can only be edited while adding a new account)
7. In **[LOCAL LOGIN]** option, use "**Left**" **and** "**Right**" buttons to enable/disable this user as local account type.
8. In **[LOCAL TIMEOUT]** option, use "**Left**" **and** "**Right**" buttons to select local timeout period.



9. In **[LOCAL PASSWORD]** option, press "**Enter**" Enter button to input a 4-10 numeric characters local password by using keypad key. Press "**Enter**" Enter button and retype the same password by keypad keys to confirm





Note: Enter password key mapping:
RX364:
'1'- '4' ➔ **"Cam 1" – "Cam 4"**
'5' ➔ **"Full"** '6' ➔ **"Quad"**
'7' ➔ **"Seq"** '8' ➔ **"Event"**
'9' ➔ **"Rec"** '0' ➔ **"Live"**

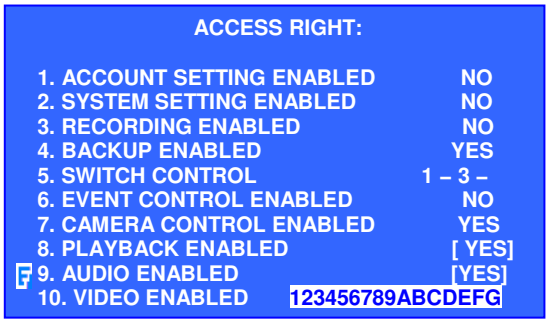
RX368_V2:
'1'- '8' ➔ **"Cam 1 "– "Cam 8"**
'9' ➔ **"Full"** '0' ➔ **"Quad"**

RX3616_V2:
'1'- '9' ➔ **"Cam 1" – "Cam 9"**
'0' ➔ **"Cam 10"**

10. Select **[ACCESS RIGHT]** option and press "**Enter**" Enter button to edit account access right.

    Notes:
    NO Access right disabled
    YES Access right enabled
    [YES] Access right automatic enabled because other dependent access right is enabled (refer Appendix E for more detail)

11. Select **[REMOVE ACCOUNT]** option and press "**Enter**" Enter button if want to remove this account.

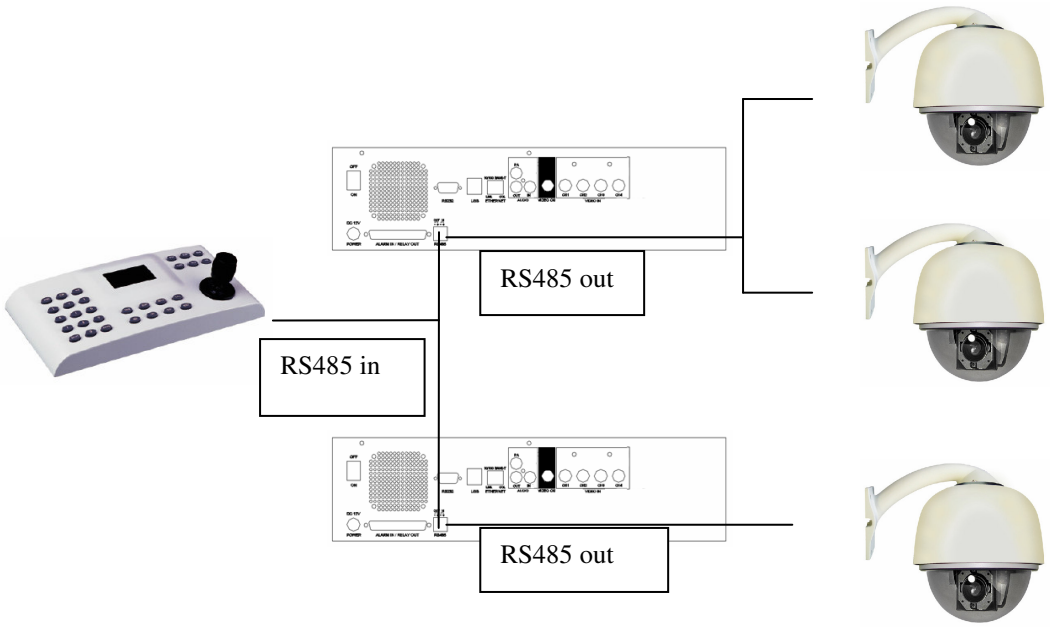


O. External Keyboard

RX supports **CAMERIO** KB-02 to control local operation and PTZ cameras.

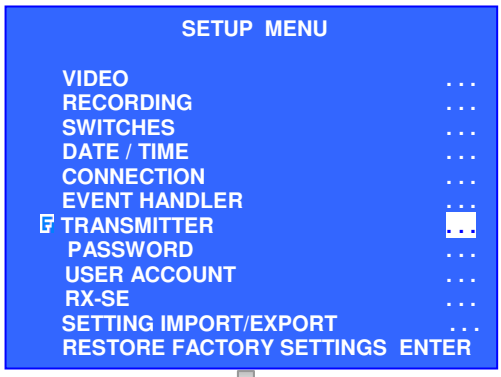
External Keyboard and Camera Setup

1. Connect **CAMERIO** KB0-2 to RX RS485 IN connector at the rear panel.
2. Connect Cameras' RS485 wire to RX RS485 OUT connector.

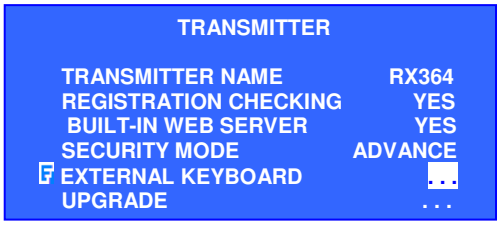


External Keyboard Setup Procedures

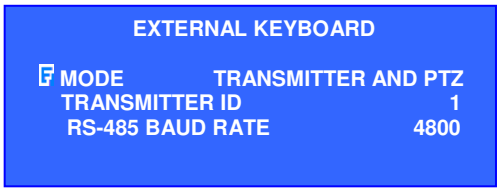
1. Press "**Menu**" Menu button, select **[SETUP]** option and press "**Enter**" Enter button to enter **[SETUP]** sub menu. Select **[TRANSMITTER]** option and press "**Enter**" Enter button to show video recording server setting menu.



2. Select **[EXTERNAL KEYBOARD]** option and press "**Enter**" Enter button to enter **[EXTERNAL KEYBOARD]** sub menu.



3. Select **[TRANSMITTER AND PTZ]** option and press "**Enter**" Enter button to enable External Keyboard control video recording server
4. Select **[TRANSMITTER ID]** and **[RS-485 BAUD RATE]** by using "**Left**" **and** "**Right**" buttons. Noted that RS-485 BAUD RATE is recommended to use 4800.
5. Follow the installation procedure of **CAMERIO** DM-KB02 to setup keyboard parameter.



APPENDIX A

Safety Instruction

Important safety instruction

Read the instruction carefully. Save these instructions for future reference.

1. Follow all warnings and instructions marked on the product and this user guide.
2. Do not place this product on unstable cart, stand, or table. The product may fall, causing serious damage to the product.
3. Slot and openings of the casing are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be placed near of over a radiator or heat source, or in a built-in installation unless proper ventilation is provided.
4. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type power available, consult your dealer or local power company.
5. The DVD drive used with this product is a laser product. It radiates Class 3B invisible laser when open. Avoid direct exposure to the beam
6. Beware of the DVD drive's tray when inserting/ ejecting DVD disc. Incorrect usage may cause damage on the DVD disc, the DVD drive or hurt the operator's finger.
7. Make sure the Hard Disk cartridge lock is open before removing and installing the cartridge.
8. The Hard Disk cartridge and cartridge frame contain metal parts that may cause injury of user. Handle with care especially when installing and removing Hard Disk.
9. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks.

APPENDIX B

Limited Warranty

Conditions, Limitations and Liabilities of This Warranty:

1. Signal Communications Ltd. (hereinafter called ***Tele*Eye**) provides free repairing labour and free repairing parts for the first 12 months. Please present the Warranty Card and the original invoice when you are asking for service support.
2. In case of applicable, ***Tele*Eye** staff shall request a remote access inspection or trouble shooting through internet, PSTN, ISDN, or mobile media.
3. When service is required, the Customer is responsible for all the transportation costs.
4. Outdoor services are not included. Subject to ***Tele*Eye**, outdoor services will be provided at extra charges.
5. This warranty does not extend to cover any damages or malfunction resulting from disaster, environmental factor, abnormal humidity/temperature, improper voltage, electrostatic discharge, misuse, negligence, ignorance, accident, mold, or repairs /modifications made by any person(s) other than the authorized personnel of ***Tele*Eye**.
6. ***Tele*Eye** reserves the right to charge Customer an inspection fee, on-site service fee or cost of parts if (i) no fault in the equipment can be found during inspection or (ii) the defect is caused at conditions those mentioned in point 5 above or (iii) Customer fail in providing access methods to the site or the equipment, e.g. specified access permit or key. Such determination is up to the sole discretion of ***Tele*Eye**.
7. The warranty is void if any of the cabinet seal has been removed or opened if there is any such sign not being made by any authorized personnel of ***Tele*Eye**.
8. Under no circumstance shall ***Tele*Eye** be liable for any damages to any parties so caused by the usage of the above specified equipment or so caused during service provision.
9. The conditions, limitations and liabilities of this warranty card may be extended to further terms and conditions or superseded by other terms and conditions when otherwise specified on any of the products.
10. Customer shall be responsible for backing up the data contained in the disk products.
11. ***Tele*Eye** shall have no responsibility arising out of any damage to, or loss of the data contained in the disk products.
12. All the above determinations are up to the sole discretion of ***Tele*Eye**.

APPENDIX C

*sure*LINK Technology

***sure*LINK** technology is available in **CAMERIO RX**, which enables you to connect to the video recording server with broadband dynamic IP Internet connection. If you can only use broadband dial-up account to connect to the Internet through your computer, ***sure*LINK** provides a solution for sharing the Internet connection between your computer and the video recording server.

***sure*LINK** is a group of additional functions, services and software provided for the video recording server so as to make it connect to the Internet in any connection methods. Such function can only be used if you have applied for this service. After you have done so, you also need to configure the video recording server to make ***sure*LINK** available. This section will help you to configure and use it.

By using of ***sure*LINK** technology, the powerful **CAMERIO RX** can work on broadband Internet economically. You can perform a cost effective and convenient remote live video monitoring anytime and anywhere.

<u>*sure*LINK Address</u>

You can apply for a ***sure*LINK** address (domain name), such as *www.hkpublic.teleeye.teleeye.net*, for your video recording server. You can use this name to login or browse the built-in web server **. One of the advantages is that you are not required to memorize the IP address (e.g. 210.177.50.156) of the video recording server. Since the ***sure*LINK** address is fixed while the IP address may change periodically (in case when dynamic IP is used), you do not need to worry about the expiration of the IP address. The ***sure*LINK** address can also be used in video recording server web browsing to see live video on standard web browser (e.g. IE, Netscape).

<u>Refreshing Rate</u>

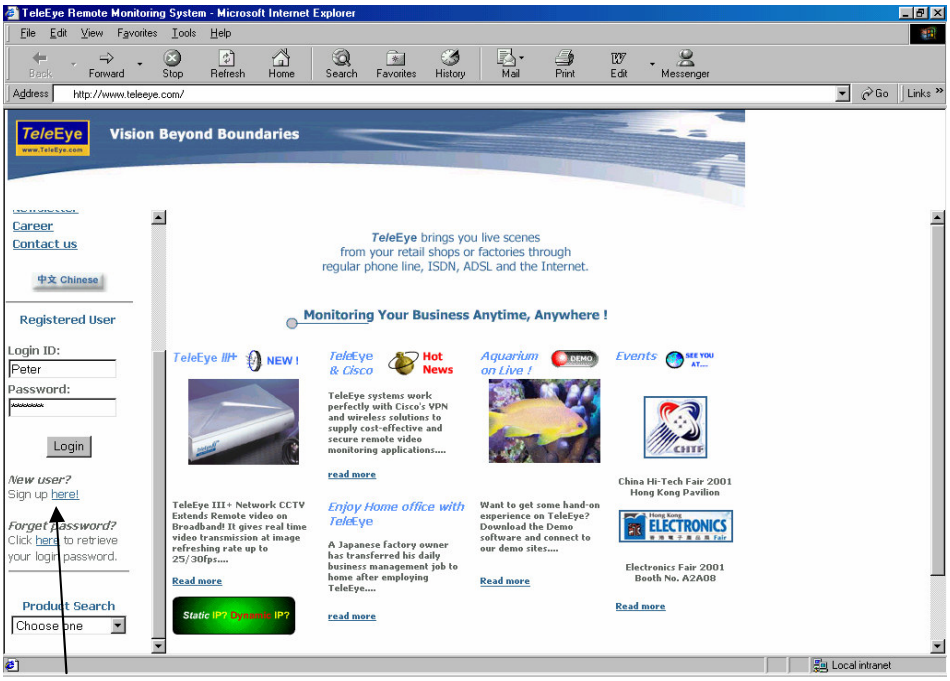
When ***sure*LINK** address feature is enabled, the video recording server will periodically update its current IP address to our database to ensure that the ***sure*LINK** address is always forwarded to a valid IP. You can set this update period through OSD menu.

<u>DNS Services:</u>

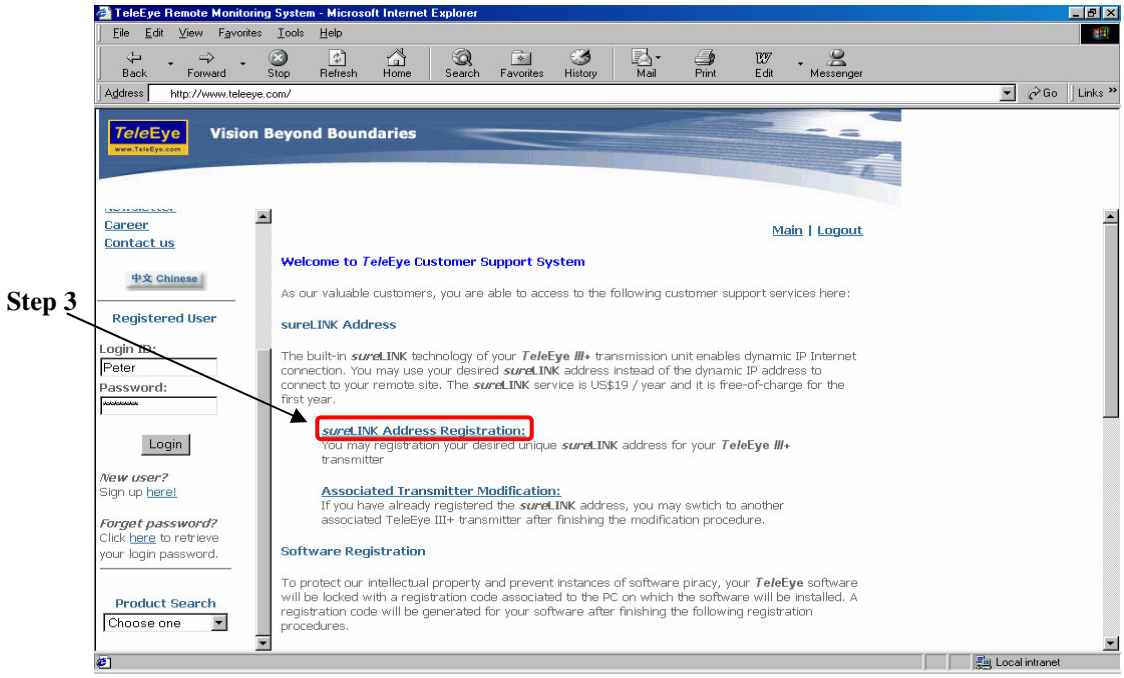
Assigned when the video recording server can directly access the Internet without the help of ***Tele*Eye** Proxy Server

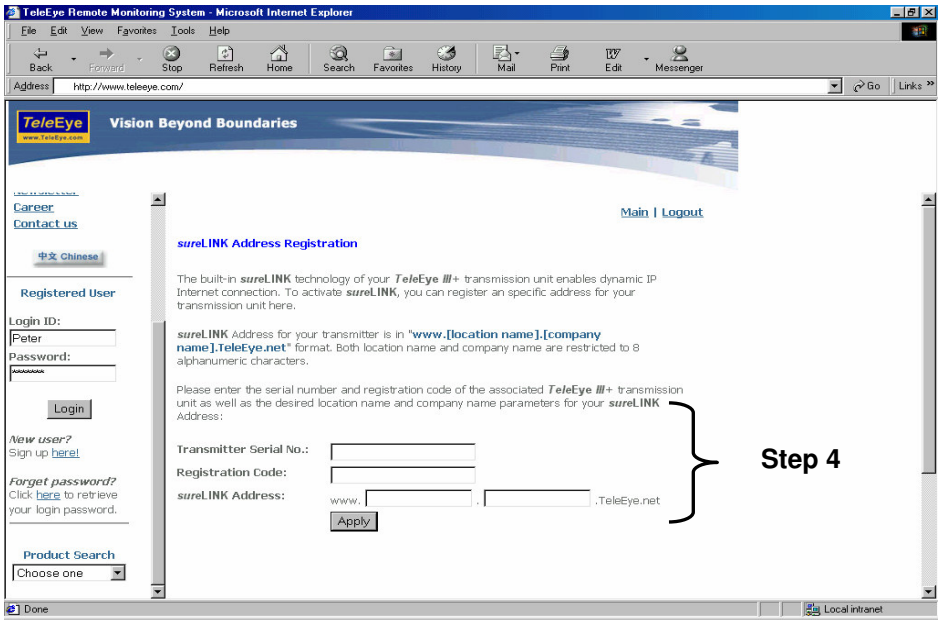
How to Apply for *sure*LINK Address

You can apply for ***sure*LINK** by visiting our web site at *http://www.TeleEye.com*



1. Sign up to create your user account
2. Login the page using your registered name and password.
3. Click ***sure*LINK Address Registration** button





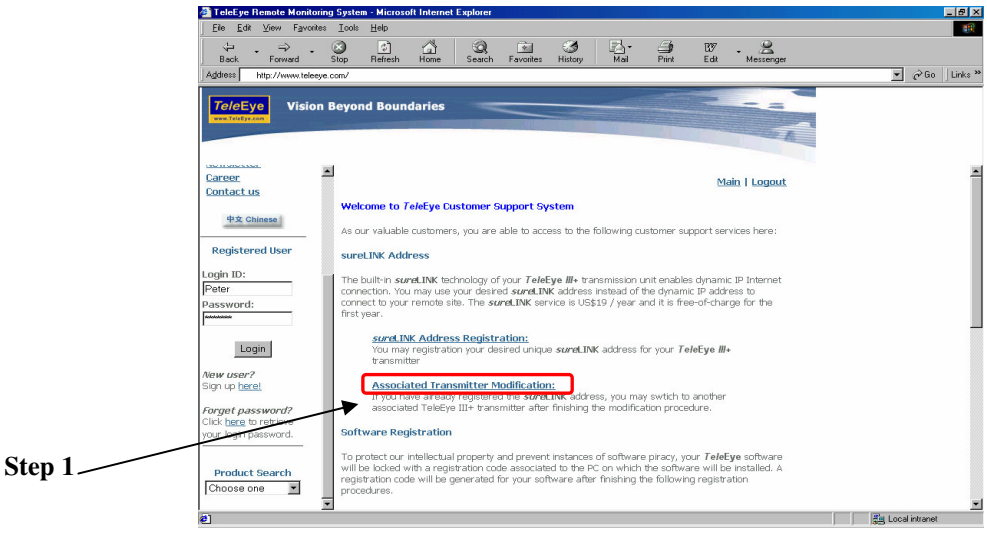
4. Enter a ***sure*LINK** address (**Domain Name**), your **Video recording server Serial No.** and **Registration Code** in the fields provided respectively. Then click the **Apply** button. The process is then completed.

After we receive your domain name registration for your video recording server, your application will be processed. Normally, it requires about 2 to 3 working days to activate ***sure*LINK** for your video recording server. You will receive a notification e-mail when your ***sure*LINK** service is ready.

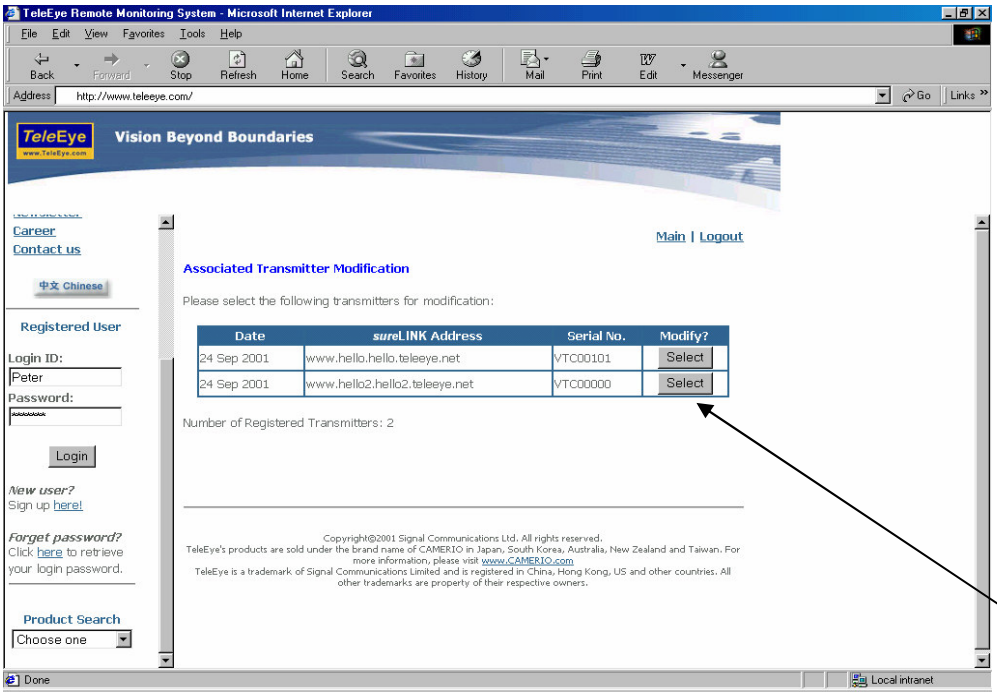
Transmitter Modification

Since the ***sure*LINK** (Domain name) address corresponds to a single video recording server, if you change from one video recording server to another one, you have to inform us to update our database record. To do this, you can visit our ***Tele*Eye** Product Support again and follow the steps as below:

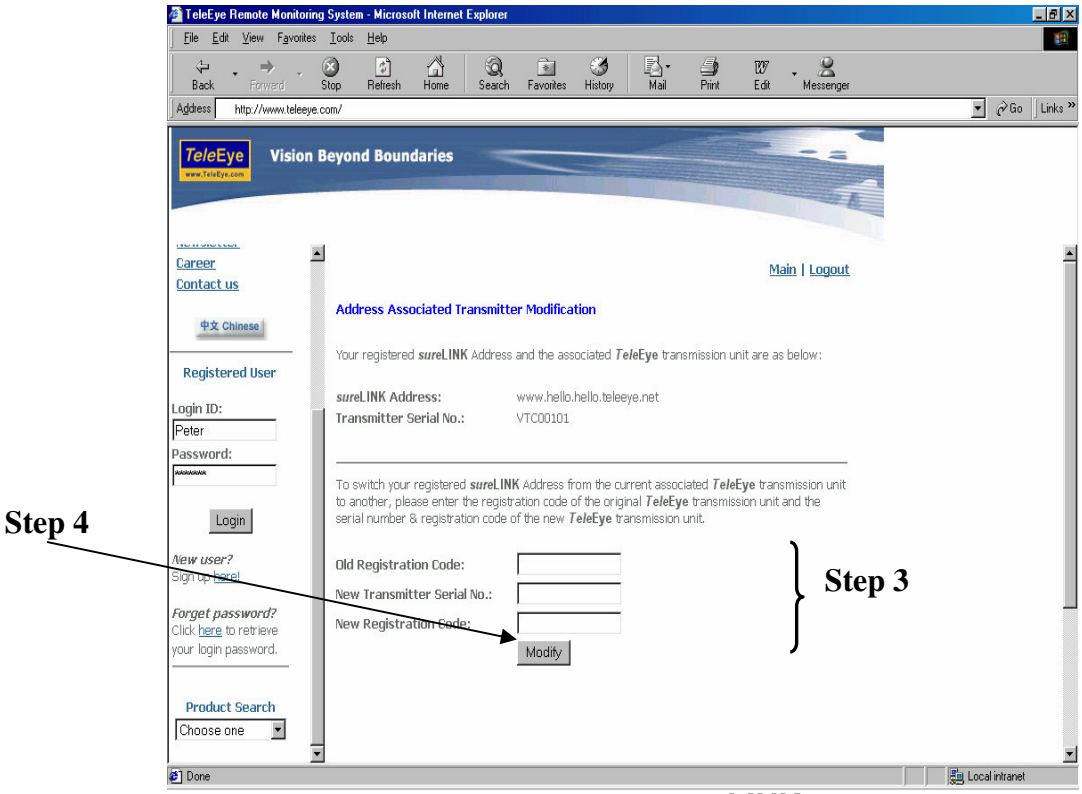
1. Transmitter Modification > Select a ***sure*LINK** address (**Domain Name**) you want to modify



*sure*LINK Technology



2. Enter the **Old Registration Code**, **New Transmitter Serial Number** and **New Registration Code** at each field provided. Click Modify button to submit the form.



If the above procedure is completed successfully, the ***sure*LINK** will be effective immediately.

APPENDIX D

Firmware Upgrade

Please follow the following procedures to upgrade the new version of **CAMERIO RX** firmware. Note that user must upgrade the new version of **CAMERIO RX** firmware TWICE if the current version firmware is below 2.00.00 version.

USB Upgrade :

Step 1 :	• If you already have the firmware upgrade file in a USB, please go to **Step 3**. Otherwise, please go to **Step 2**.
Step 2 :	• Get ready the **RX** firmware upgrade file *.rxp. Get ready an empty USB drive and download the **RX** firmware upgrade file to your USB **root directory**, for example, E:*.rxp.
Step 3 :	• Turn on **RX** video recording server. Plug the USB flash into USB port in the rear panel of **RX** video recording server. Press **Menu** button at the front panel of the video recording server. • Enter Main menu → Setup menu → Transmitter menu → Upgrade menu → Upgrade Transmitter Firmware → Choose Upgrade from USB and press **Enter** button. • The video recording server will complete the upgrade process automatically.
Step 4 :	• After upgrade, press **Menu** button at the front panel of the video recording server. • Enter Main menu → Transmitter Info menu, to check the **RX** firmware version is upgraded or not.

CD Upgrade :

Step 1 :	• If you already have the firmware upgrade file in a CD, please go to **Step 3**. Otherwise, please go to **Step 2**.
Step 2 :	• Prepare a blank CDR. Burn the **RX** firmware upgrade file into the **root directory** of the blank CDR, for example, F:*.rxp. (For burning the **RX** firmware upgrade file into the CDR, please refer to the user guide of the software for burning CDR.)
Step 3 :	• **Install a RX formatted hard disk** into **RX** video recording server and turn it on. Insert the CD into the CD-ROM of **RX** video recording server. Press **Menu** button at the front panel of the video recording server. • Enter Main menu → Setup menu →Transmitter menu → Upgrade menu → Upgrade Transmitter Firmware → Choose Upgrade from CD and press **Enter** button**.** • The video recording server will complete the upgrade process automatically.
Step 4 :	• After upgraded, press **Menu** button at the front panel of the video recording server. • Enter Main menu → Transmitter Info menu, to check the **RX** firmware version is upgraded or not.

APPENDIX E

Security Mode

On RX364/RX368_V2/RX3616_V2, there are 2 security modes: BASIC and ADVANCED. User can either choose BASIC security mode for simple usage or ADVANCED security mode for multiple user accounts and flexible access right. The comparison of the security modes can be found in the following table:

Description		Basic Security Mode	Advanced Security Mode
Number of account		2	20
Account apply on		reception software	reception software and local OSD
Password length		6	4 – 10
Password encryption		No	Yes
Login	Reception software	Only password	User name and password
	Local menu	- -	Only password
Access right		Operation System setting	Video monitoring Audio monitoring and PA Playback Camera Control Event Control Switch Control Video backup Recording System setting User account

* 6 concurrent users in both security modes

Basic security mode -- User account

ADMINISTRATOR

Type	Default	Remark
User name	ADMINISTRATOR	FIXED
Access right	Operation and System setting	FIXED
Network password	000000	Available to change

USER

Type	Default	Remark
User name	USER	FIXED
Access right	Operation	FIXED
Network password	123456	Available to change

Basic security mode -- Access right

Group	Features Involved
Operation	Video/audio monitoring, PTZ, Playback, Switch control
System setting	Start/stop recording, Video backup, System setting, Restart transmitter Firmware upgrade

RX Security Mode

Advanced security mode -- User account

Account structure

Type	Description	Remark
General setting		
User name	Login user name from remote software	4-16 characters case insensitive unique between each account
Account type	LOCAL / NETWORK / BOTH	allow user to login from local OSD / remote software / both
Access right	Access right of the user account	(Access right)
Network account type setting		
Network password	Login password from remote software	4-10 characters case insensitive
Local account type setting		
Local password	Login password from local OSD menu	4-10 characters (**ONLY** numeric character available) unique between each account
Local time out	Automatic log-out time period when keypad idle	except in playback state

In factory default, 2 preset accounts: ADMINISTRATOR and USER1 are stored in the video recording server.

Administrator account: ADMINISTRATOR**

Type	Default	Remark
User name	ADMINISTRATOR	FIXED
Account type	BOTH	FIXED
Access right	ALL	FIXED
Network password	000000	Available to change
Local password	111111	Available to change
Local time out	15 MINS	Available to change

**Administrator account cannot be removed

Normal account: USER1

Type	Default	Remark
User name	USER1	FIXED
Account type	BOTH	Available to change
Access right	VIDEO MONITORING	Available to change
Network password	123456	Available to change
Local password	123456	Available to change
Local time out	15 MINS	Available to change

POWER ON DEFAULT RIGHT

At RX startup or local user logout, access right of local menu will follow the setting of "POWER ON DEFAULT RIGHT"

Type	Default	Remark
Access right	NONE	Available to change

RX Security Mode

Advanced security mode -- Access right

Group	Features Involved
VIDEO MONITORING[#]	basic video monitoring with fixed cameras browsing the event status**
AUDIO MONITORING and PA	audio monitoring** PA with microphone, PA with pre-recorded voice clips
PLAYBACK	video playback** browsing event logs , connection log, setting log and operation log
CAMERA CONTROL	PTZ**
EVENT CTRL	clear event
SWITCH CONTROL	switch control
{All video monitoring}, {audio monitoring} & {playback} access right group will be enabled	
VIDEO BACKUP[1]	video extraction and backup
RECORDING[1]	start/stop recording start/stop schedule recording
SYSTEM SETTING[1]	video format, camera installation, throughput control setting change live video quality, brightness, contrast network and modem setting data/time setting hard-disk formatting recording setting switch setting event setting firmware upgrade shutdown/restart
All access right group will be enabled	
USER ACCOUNT[2]	setting import/export user account setting switch video recording server security mode restore factory setting

at least one camera should be selected
** Video monitoring dependence. For example, if user has no access right on camera 2 monitoring, he cannot browse event status, control PTZ and playback on this camera.

[1] Automatic enable all video monitoring, audio monitoring and playback permission
[2] Automatic enable all access right permission

RX Security Mode

APPENDIX F

General Terms Discussion

Before you start to configure the video recording server, you may need to know some of the terms and information used in the video recording server.

Registration Checking

Users need to do the registration in the **CAMERIO** Reception Software WX-30 for authorization before the video recording server can be used when such feature is enabled in the **CAMERIO RX**. This option can be applied to improve the security protection for the organization when higher security level is required. If the video recording server is decided to open for public use, you can disable this feature so that public users do not need to register for viewing live video from the **CAMERIO** Reception Software WX-30.

Site Monitoring Method

There are mainly four methods to link up with the video recording server to see video:

- Telephone Line (Public Telephone Network/ISDN)
- TCP/IP in LAN
- TCP/IP on the Internet using Broadband and Internet Router
- TCP/IP on the Internet using Broadband with Dial-up Software

You have to choose one of the **connection methods** in Section 3 to configure the video recording server before use so as to make it function properly.

The **CAMERIO Reception Software WX-30** contains all the settings for different remote video monitoring method. Different connection methods may have different settings, and some of the setting configured in one connection method is not applicable to other method. In this case, you can refer to one of the following configuration procedures for the connection method you will use.

It is recommended that the above items should be configured before the first time you use the video recording server no matter which connection method you use. The steps to set the above items are discussed in **Section 3 : Basic Installation for Local and Remote Monitoring**

APPENDIX G

Audit Trial Log Description

A. Audit Trial Log Description of Setting Log and Operation Log

Event short form : *[EVENT]*
ARM : arm / disarm input
SECUSW : security switch input
ALARM : alarm sensor input
MOTION : motion
VLOSS : video loss
SYSTMR : system tamper input
PWRFAL : power failure input
HDD : disk usage
HI TMP : overheat

B. Setting Log Operation Column Table :

OPERATION	DESCRIPTION
CAMERA	Install/uninstall camera
CAMERA NAME	Change camera name
PTZ CAMERA	Support / unsupported PTZ camera
PTZ PAN SPEED	Change PTZ camera pan speed
PTZ TILT SPEED	Change PTZ camera tilt speed
PTZ PAN DUR	Change PTZ camera pan duration
PTZ TILT DUR	Change PTZ camera tilt duration
PTZ ZOOM DUR	Change PTZ camera zoom duration
PTZ FOCUS DUR	Change PTZ camera focus duration
PTZ IRIS DUR	Change PTZ camera iris duration
PTZ ADDI DUR	Change PTZ camera additional duration
PTZ WASHER DUR	Change PTZ camera washer duration
PTZ WIPER DUR	Change PTZ camera wiper duration
PTZ PTL SPEED	Change PTZ camera patrol speed
PTZ DWELL TIME	Change PTZ camera dwell time
PTZ DRIVER	Change PTZ driver
PTZ BAUD RATE	Change PTZ camera baud rate
CLOCK POSITION	Change OSD clock position
CAM NAME POSN	Change OSD camera name position
SEQ SW TIME	Change camera sequential switch time
SEQ MODE CAM	Change camera in sequential display mode
DISPLAY MODE	Change default display mode
OSD COLOR	Change OSD menu color
VIDEO FORMAT	Change camera video format

RECORD MODE	Change recording mode
DISK MODE	Change recording disk mode
QUALITY	Change recording quality
IMAGE SIZE	Change recording image size
SWITCH NAME	Change switch name
SWITCH TYPE	Change switch type
DATE TIME	Change date time
NETWORK	Change IP, subnet mask. Change / enable / disable gateway
PORT	Change port
DNS	Enable / disable DNS
DNS ADDRESS	Change DNS address
SURELINK	Enable / disable ***sure*LINK**
SULK ADDRESS	Change ***sure*LINK** address
SULK REFR RATE	Change ***sure*LINK** refresh rate
MODEM BAUD RATE	Change modem baud rate
MODEM RING CNT	Change modem ring count
THROUGHPUT	Change video recording server throughput
ARM/DISARM	Enable / disable arm/disarm input
ARM STATE	Change arm state
ARM TMR TYPE	Change arm/disarm tamper type
ASSOCIATE SW 1	Enable / disable arm/disarm associate switch 1
SECURITY SWITCH	Enable / disable security switch
SECUSW ON STATE	Change security switch on state
SECUSW TMR TYPE	Change security switch tamper type
ASSOCIATE SW 2	Enable / disable security switch associate switch 2
ALARM	Enable / disable alarm sensor
ALARM NAME	Change the alarm sensor name
ALARM SEN TYPE	Change alarm sensor type
ALARM TMR TYPE	Change alarm tamper type
ZONE TYPE	Change alarm sensor zone type
ENTRY DELAY	Change alarm sensor entry delay
EXIT DELAY	Change alarm sensor exit delay
MOTION	Enable / disable motion
MOTION BLOCK	Change motion block
MOT SENSITIVITY	Change motion sensitivity
VIDEOLOSS	Enable / disable video loss
SYSTEM TAMPER	Enable / disable system tamper
SYSTMR SEN TYPE	Change system tamper sensor type
POWER FAILURE	Enable / disable power failure
PWRFAL SEN TYPE	Change power failure sensor type
DISK USAGE	Enable / disable disk usage
HDD USAGE LEVEL	Change disk usage warning level
OVERHEAT	Enable / disable overheat
[EVENT] RECORD	Enable / disable recording action for the event
[EVENT] REC CLDU	Change recording duration after event clear
[EVENT] REC MODE	Change event recording mode
[EVENT] REC CAM	Change event recording camera
[EVENT] SWITCH	Enable / disable switch action

Audit Trial Log Description

[EVENT] SW EN	Change associate switch in switch action
SW LATCH DUR	Change switch latch duration
SWITCH DELAY	Change switch action delay
[EVENT] DIALBACK	Enable / disable dial back action
DB RETRY DUR	Change dial back retry duration
DB RETRY COUNT	Change dial back retry count
DIALBACK IP	Change dial back IP address
DIALBACK PORT	Change dial back port
[EVENT] EMAIL	Enable / disable email action
SMTP SERVER	Change SMTP server address
SMTP AUTH	Enable / disable SMTP server authentication
SMTP USER	Change SMTP server user name
SMTP PW	Change SMTP server user password
EMAIL ADDR	Change recipient email address
MAX EMAIL NO	Change maximum no of email
[EVENT] BUZZER	Enable / disable buzzer action
BUZZER DURATION	Change buzzer duration
BUZZER DELAY	Change buzzer delay
[EVENT] LED	Enable / disable LED action
[EVENT] LIVECAM	Enable / disable live camera action
[EVENT] LIVE CAM	Change associate cameras in live camera action
[EVENT] PTZ	Enable / disable PTZ action
[EVENT] PTZ CAM	Change PTZ associate camera
[EVENT] PTZ PSET	Change PTZ camera recall preset position
TX NAME	Change video recording server name
REG CHECK	Enable / disable registration checking
WEB SERVER	Enable / disable built-in web server
EVENT MENU	Protect / unprotect event menu by password
RECORD MENU	Protect / unprotect recording menu by password
SEARCH MENU	Protect / unprotect search menu by password
MAIN MENU	Protect / unprotect main menu by password
CHANGE PASSWORD	Change password

C. Operation Log Operation Column Table :

OPERATION	DESCRIPTION
START RECORDING	Start manual recording
STOP RECORDING	Stop manual recording
START PLAYBACK	Start playback video
STOP PLAYBACK	Stop playback video
START BACKUP CD	Start backup video to CD
RESTORE BACKUP	Restore default factory setting
RESTART	Restart video recording server
SHUTDOWN	Shut down video recording server
UGRADE USB	Upgrade firmware from USB
UGRADE CDR	Upgrade firmware from CDR
SWITCH (No.1~4) ON	Switch (No.) turn on
SWITCH (No.1~4) OFF	Switch (No.) turn off

Audit Trial Log Description

APPENDIX H

Specifications

	MODEL		
VIDEO INPUT	**RX364**	**RX368_V2**	**RX3616_V2**
STANDARD	(P): PAL/CCIR, 625 lines, 25 frames per second (N): NTSC/EIA, 525 lines, 30 frames per second composite video, 1 V_{p-p}, BNC		
NO. OF CHANNELS	4	8	16
VIDEO OUTPUT			
STANDARD	(P): PAL/CCIR, 625 lines, 25 frames per second (N): NTSC/EIA, 525 lines, 30 frames per second composite video, 1 V_{p-p}, BNC		
NO. OF CHANNELS	1	1 Video out, 1 Spot out	
DISPLAY SCREEN	full, quad	full, quad, 3 x 3	full, quad, 3 x 3, hex
DISPLAY FRAME RATE	25/30fps D1, 100/120fps CIF	25/30fps D1, 100/120fps CIF, 200/240fps 3 x 3	25/30fps D1, 100/120fps CIF, 200/240fps 3 x 3, 400/480fps QCIF
VGA			
SUPPORT	N/A	Optional	
FREQUENCY	N/A	60 / 75 Hz	
RESOLUTION	N/A	1024 x 768 / 1280 x 1024	
STANDALONE OPERATION			
TYPE	System configuration, operation, audit trail		
AUDIO			
INPUT	1 channel, RCA, line level	2 channels, RCA, line level	
	Input impedance : 30k, frequency : 200-3500Hz		
OUTPUT	PA/local output : 1 channel, RCA, line level; Output impedance : 600ohm, frequency : 200-3500Hz		
COMMUNICATION			
NETWORK	RJ-45, 10/100 Base-T Ethernet (auto-sensing)		
CONCURRENT USERS	6(independent)		
***sure*LINK**	support Internet connection assigned with dynamic IP address		
MAX. TRANSMISSION FRAME RATE	20/30fps D1, 50/60fps CIF	25/30fps D1, 100/120fps CIF	
WEB SERVER	Built-in		
USB	USB2.0, 12Mbps		
MODEM PORT	RS-232C: DB-9 male, asynchronous, 8 data bits, 1 stop bit, no parity, 9.6k-115.2kbps, hardware flow control		
TELEMETRY CONTROL	Keyboard/ Camera port: RS-422/485: 2-way terminal, asynchronous, 8 data bits, 1 stop bit, no parity, 2.4-19.2kbps		

RECORDING			
MODE	manual, schedule, event-driven		
HD TYPE	IDE interface, removable		
MAX. RECORDING RATE	(P) : 25fps at 720 X 576 pixels; 100fps at 360 X 288 pixels (N) : 30fps at 720 X 480 pixels; 120fps at 360 X 240 pixels	(P) : 50fps at 720 X 576 pixels; 200fps at 360 X 288 pixels (N) : 60fps at 720 X 480 pixels; 240fps at 360 X 240 pixels	
PLAYBACK	Forward, Backward, Pause, Step Forward, Step Backward, x10 Fast Forward, x100 Fast Forward		
DVD WRITER			
TYPE	Built-in		
EVENT HANDLING			
EVENT TYPE	external alarm, tamper, video motion detection, video loss, disk full, power interruption, system fail, disk usage, overheat		
ACTION TYPE	Live camera, buzzer, dial back, recording, relay control, PTZ, email notification, spot output		
EXTERNAL ALARM INPUTS	16 x NC/NO		
RELAY SWITCH			
NO. OF CHANNELS	4		
MAX. RATING	24V AC, 1000mA		
POWER			
VOLTAGE	12V DC		
MAX. RATING	50W	55W	70W
OPERATING ENVIRONMENT			
AMBIENT TEMPERATURE	5°C – 40°C		
RELATIVE HUMIDITY	<85% (no condensation)		
MECHANICAL DESIGN			
DIMENSION	400mm x 365mm x 120mm		
WEIGHT	6.5kg	6.7kg	6.7kg

- END -