DIGITAL VIDEO RECORDER

OPERATION MANUAL (REV.2.1)

XQ - Series XQ - LITE Series

Failure to follow these instructions could result in serious personal injury or death. Failure to follow these instructions could result in personal injury or property damage. NOTICE Notifies user of references to use conveniently.
A WARNING
☐ Install this equipment avoiding a direct ray of light, heats and moistures. -Doing not, can result in lowering efficiency, electric shock or fire.
☐ Do not pull electric wire or do not touch power plug with wet hands. -Can result in electric shock or fire.
☐ Do not bend the power cable forcedly or do not press it with heavy materials. -Can result in electric shock or fire.
☐ Do not use damaged power cord or loose outlet plug. -Can result in electric shock or fire.
☐ Do not use the outlet fullyCan result in electronic shock or fire.
☐ Do not disassemble, repair or convert this product without permission. -Can result in electric shock or fire. When repair is required, contact the service center.
 □ Do not open the cover of the product at your convenience or do not insert inductive stick into the ventilation hole. -Especially, SMPS is open, so only professional technicians are allowed to work on.
ACAUTION
□ Do not place equipment on the inclined or uneven plane. -Can cause lowering of efficiency or malfunction.
□ Do not vibrate or shock in operation. -Can cause out of order with equipment and hard disk (HDD).
\Box be caution that do not cover the ventilation hole of HDD or put liquid into the equipmentmay cause out of order of equipment and hard disk drive (HDD)
☐ Battery Caution: "Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions."

Contents 3

Open the box at the clean and even place. And read operation manual thoroughly before you install.



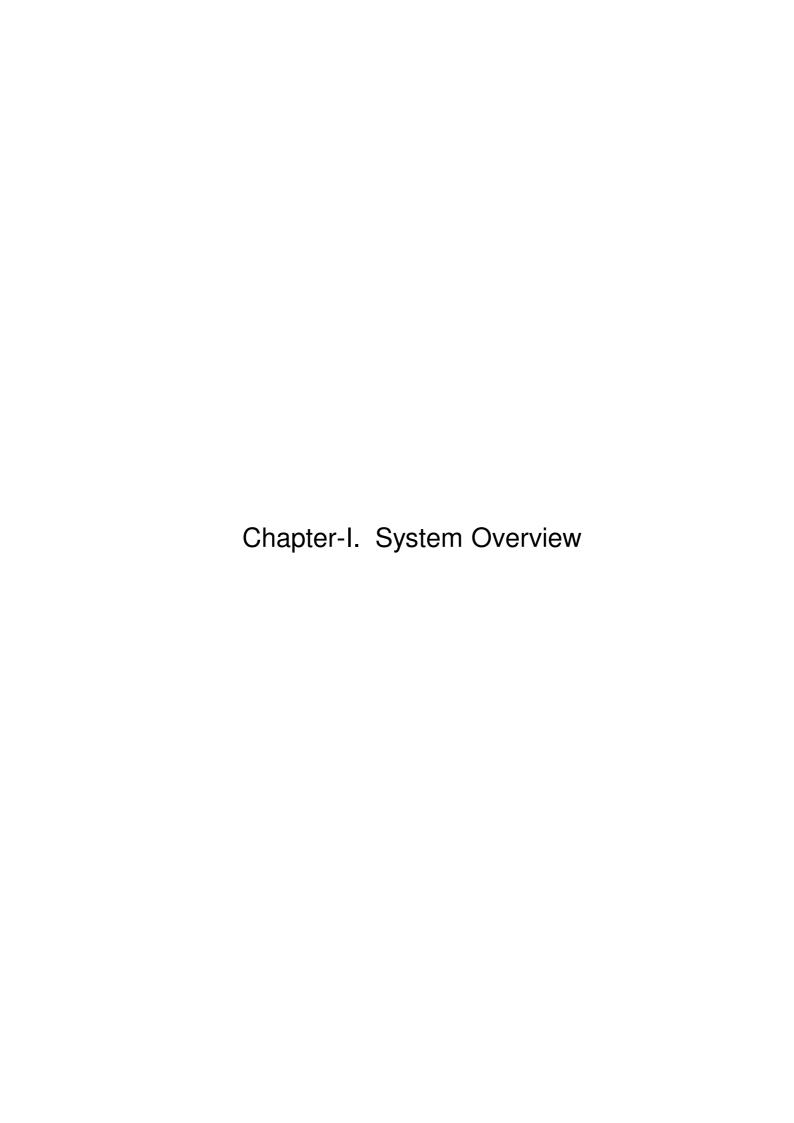
NOTICE

Check the items supplied with your DVR system. Refer to the picture above and contact your dealer if you find anything is missing or damaged.

The specification and appearance may be changed without prior notice.

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System Specification (XQ Pro SERIES)

		XQ 400	XQ 900	XQ 1600				
Video IN / Loo	p Out	4/4	9/9	16/16				
Video Display		1,4	1, 4, 9	1, 4, 9, 16				
Monitor Out		1ch Composite / 1ch S-Video						
VGA Out		1ch						
Spot Out		2ch						
Audio In/Out		4 in / 1 out						
Audio Compre	ssion	G.723						
Display Resolu	ition	720x480						
Recording Res	olution	720x480, 720x240, 360x240						
Video Compres	ssion	Mpeg4 Level 1,2,3						
Display	NTSC	120fps	270fps	480fps				
Frame	PAL	100fps	225fps	400fps				
Record	NTSC	120fps	240fps	480fps				
Frame	PAL	100fps	200fps	400fps				
Playback	NTSC	120fps	240fps	240fps				
Frame	PAL	100fps	200fps	200fps				
OS	•	Embedded Linux						
Network		10/100 Base-T (1EA)	10/100 Base-T (1EA)					
USB		USB2.0 (Front 2EA, Rear 1EA)	USB2.0 (Front 2EA, Rear 1EA)					
HDD	E-IDE	2ch (Max 4EA HDD)						
טטח	SATA	4ch (Max 4EA HDD)	4ch (Max 4EA HDD)					
Console		RS232C	RS232C					
PTZ		RS485	RS485					
Alarm Function	n (In/Out)	4/4	8/4	16/4				
Front Key		34 Key, Jog/Shuttle	34 Key, Jog/Shuttle					
Remote contro	oller	ID Remote controller	ID Remote controller					
Watchdog / Po	ower monitor	Yes	Yes					
LCD		16X1 Line green back LCD	16X1 Line green back LCD					
Front LED		Power, Network, HDD	Power, Network, HDD					
Dimension		435(W) x 425(D) x 87(H) mm	435(W) x 425(D) x 87(H) mm					
Operation tem	р.	0~45℃	0~45℃					
Operation hum	nidity	5~85%	5~85%					
Weight		7kg (Without CDRW, HDD)	7kg (Without CDRW, HDD)					
Power		Micro ATX 115/230VAC, 60/50H	Micro ATX 115/230VAC, 60/50Hz, 6/3A					

System Specification (XQ Pro H.264 SERIES)

		XQ 400H	XQ 900H	XQ 1600H			
Video IN / Lo	op Out	4/4	9/9	16/16			
Video Display		1, 4	1, 4, 9	1, 4, 9, 16			
Monitor Out		1ch Composite / 1ch S-Video					
VGA Out		1ch					
Spot Out		2ch					
Audio In/Out		4 in / 1 out					
Audio Compr	ession	G.723					
Display Reso	lution	720x480					
Recording Re	esolution	720x480, 720x240, 360x240					
Video Compr	ession	H.264					
Display	NTSC	120fps	270fps	480fps			
Frame	PAL	100fps	225fps	400fps			
Record Frame	NTSC	120fps	270fps	480fps			
	PAL	100fps	225fps	400fps			
Playback Frame	NTSC	120fps	240fps	480fps			
	PAL	100fps	200fps	400fps			
OS		Embedded Linux	Embedded Linux				
Network		10/100 Base-T (1EA)	10/100 Base-T (1EA)				
USB		USB2.0 (Front 2EA, Rear 1EA)	USB2.0 (Front 2EA, Rear 1EA)				
HDD	SATA	4ch (Max 4EA HDD)	4ch (Max 4EA HDD)				
Console		RS232C	RS232C				
PTZ		RS485					
Alarm Function	on (In/Out)	4/4	8/4	16/4			
Front Key		34 Key, Jog/Shuttle	34 Key, Jog/Shuttle				
Remote cont	roller	ID Remote controller	ID Remote controller				
Watchdog / F	Power monitor	Yes	Yes				
LCD		16X1 Line green back LCD	16X1 Line green back LCD				
Front LED		Power, Network, HDD	Power, Network, HDD				
Dimension		435(W) x 425(D) x 87(H) mm	435(W) x 425(D) x 87(H) mm				
Operation ter	mp.	0~45℃	0~45℃				
Operation hu	midity	5~85%	5~85%				
Weight		7kg (Without CDRW, HDD)	7kg (Without CDRW, HDD)				
Power		Micro ATX 115/230VAC, 60/50H	Micro ATX 115/230VAC, 60/50Hz, 6/3A				

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System Specification (XQ LITE SERIES)

		XQ-LITE 400	XQ-LITE 900	XQ-LITE 1600			
Video IN / Loop Out		4/0	9/0	16/0			
Video Display		1,4	1, 4, 9	1, 4, 9, 16			
Monitor Out		1ch Composite					
VGA Out		1ch					
Spot Out		1ch					
Audio In/Out		4 in / 1 out					
Audio Compres	ssion	G.723					
Display Resolu	tion	720x480					
Recording Res	olution	720x480, 720x240, 360x240					
Video Compres	ssion	Mpeg4 Level 1,2,3					
Display	NTSC	120fps	270fps	480fps			
Frame	PAL	100fps	225fps	400fps			
Record	NTSC	D1 120fps	CIF 240fps	CIF 240fps			
Frame	PAL	D1 100fps	CIF 200fps	CIF 200fps			
Playback	NTSC	D1 120fps	CIF 240fps	CIF 240fps			
Frame	PAL	D1 100fps	CIF 200fps	CIF 200fps			
OS	•	Embedded Linux					
Network		10/100 Base-T (1EA)					
USB		USB2.0 (Front 1EA, Rear 1EA)					
HDD	E-IDE	2ch (Max 3EA HDD)					
ווטט	SATA	4ch (Max 3EA HDD)					
Console		RS232C					
PTZ		RS485					
Alarm Function	n (In/Out)	4/1					
Front Key		33 Key					
Remote contro	ller	ID Remote controller					
Watchdog / Po	ower monitor	Yes					
LCD		None					
Front LED		Power, Network, HDD					
Dimension		395(W) x 390(D) x 70(H) mm					
Operation temp.		0~45℃					
Operation humidity		5~70%					
Weight		3.5kg (Without CDRW, HDD)					
Power		Adapter DC 12V, 50/60Hz , 5A	Adapter DC 12V, 50/60Hz, 7A				

System Specification (XQ LITE H.264 SERIES)

		XQL-400H	XQL-900H	XQL-1600H				
Video IN / Lo	op Out	4/0	9/0	16/0				
Video Display		1,4	1, 4, 9	1, 4, 9, 16				
Monitor Out		1ch Composite	1ch Composite					
VGA Out		1ch	1ch					
Spot Out		1ch						
Audio In/Out		4 in / 1 out						
Audio Compre	ession	G.723						
Display Resol	ution	720x480						
Recording Re	solution	720x480, 720x240, 360x240						
Video Compre	ession	H.264						
Display	NTSC	120fps	270fps	480fps				
Frame	PAL	100fps	225fps	400fps				
Record	NTSC	HD1 120fps	CIF 270fps	CIF 480fps				
Frame PAL		HD1 100fps	CIF 225fps	CIF 400fps				
Playback	NTSC	HD1 120fps	CIF 270fps	CIF 480fps				
Frame	PAL	HD1 100fps	CIF 225fps	CIF 400fps				
OS		Embedded Linux	Embedded Linux					
Network		10/100 Base-T (1EA)	10/100 Base-T (1EA)					
USB		USB2.0 (Front 1EA, Rear 1EA)	USB2.0 (Front 1EA, Rear 1EA)					
HDD	SATA	4ch (Max 3EA HDD)	4ch (Max 3EA HDD)					
Console		RS232C	RS232C					
PTZ		RS485	RS485					
Alarm Function	on (In/Out)	4/1						
Front Key		33 Key						
Remote contr	roller	ID Remote controller	ID Remote controller					
Watchdog / F	Power monitor	Yes	Yes					
LCD		None	None					
Front LED		Power, Network, HDD	Power, Network, HDD					
Dimension		395(W) x 390(D) x 70(H) mm	395(W) x 390(D) x 70(H) mm					
Operation temp.		0~45℃	0~45℃					
Operation hu	midity	5~70%	5~70%					
Weight		3.5kg (Without CDRW, HDD)	3.5kg (Without CDRW, HDD)					
Power		Adapter DC 12V, 50/60Hz , 5A	Adapter DC 12V, 50/60Hz, 7A					

System Characteristics (XQ Pro & Pro H.264 SERIES)

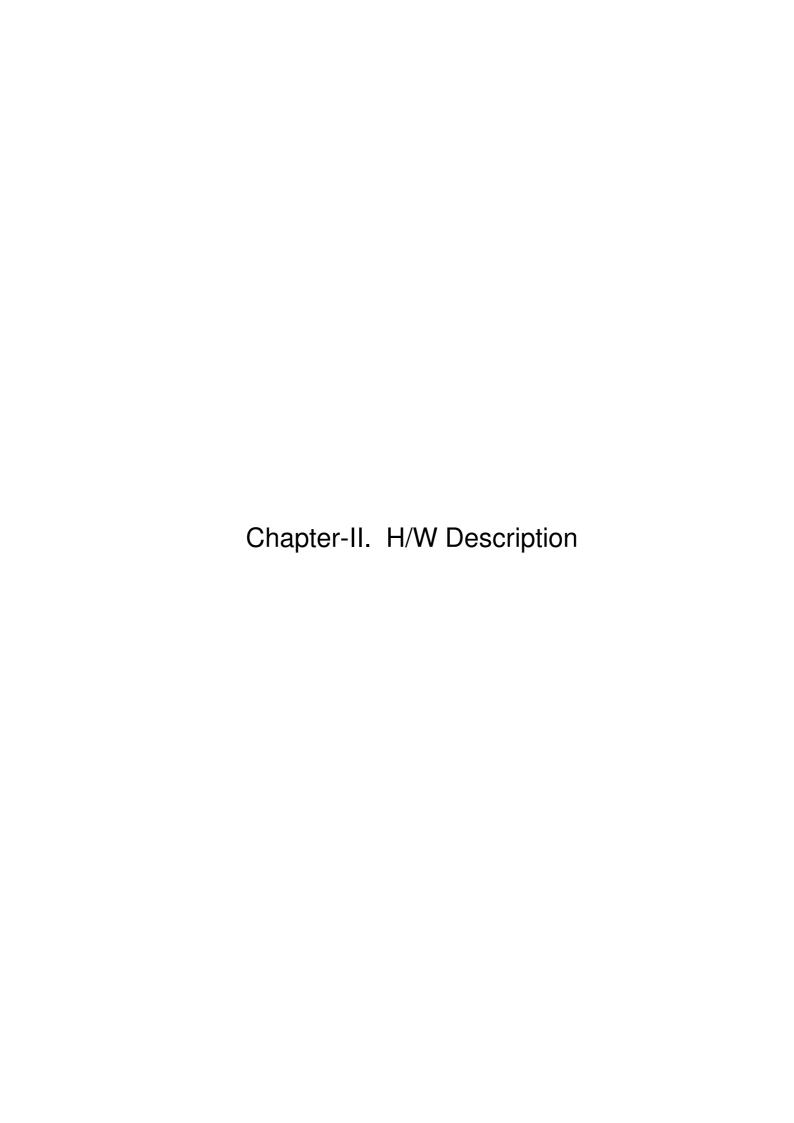
- > 480FPS real-time recording 16ch / CIF(360*240 at NTSC) standard
- > High level specification with elegance design and jog/shuttle, easy UI with LCD
- > Control recording resolution, quality, frame rate by each camera
- > USB mouse supported
- > LIVE screen editing, Digital zoom, SPOT monitor supported
- > Event / Panic / Schedule record, optimized record mode supported
- > Diversified search by Time, Calendar, Event supported
- > Diversified backup by USB2.0 and DVD-RW supported
- > Convenient backup by AVI, Mini viewer etc
- > 10/100 Base-T network
- > DDNS, NTP, E-MAIL, CALLBACK functions
- > DISK ID, S.M.A.R.T functions, real-time disk health check
- ➤ Multi-language supported
- $\ensuremath{\succ}$ Intensive security function by chosen AUTHORITY
- > Diversified network program by LIVE, SEARCH, CMS, AGENT



System Characteristics (XQ LITE & LITE H.264 SERIES)

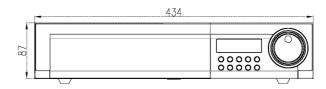
- ➤ D1(720*480) real-time recording at 4CH (Only XQ-LITE 400)
- > HD1(720*480) real-time recording at 4CH (Only XQL-400H)
- > High level specification with elegance design and jog/shuttle, easy UI with LCD
- > Control recording resolution, quality, frame rate by each camera
- > USB mouse supported
- > LIVE screen editing, Digital zoom, SPOT monitor supported
- > Event / Panic / Schedule record, optimized record mode supported
- > Diversified search by Time, Calendar, Event supported
- > Diversified backup by USB2.0 and DVD-RW supported
- > Convenient backup by AVI , Mini viewer etc
- > 10/100 Base-T network
- > DDNS, NTP, E-MAIL, CALLBACK functions
- > DISK ID, S.M.A.R.T functions, real-time disk health check
- ➤ Multi-language supported
- > Intensive security function by chosen AUTHORITY
- > Diversified network program by LIVE, SEARCH, CMS, AGENT



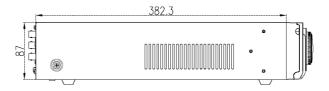


System appearance (XQ Pro & Pro H.264 SERIES)

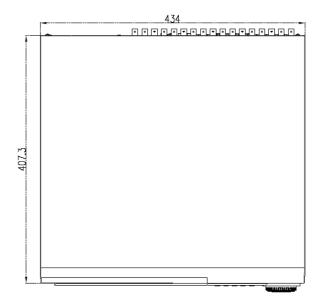
1) Front View



2) Side View



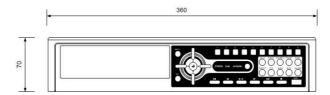
3) Top View



System appearance (XQ LITE & LITE H.264 SERIES)



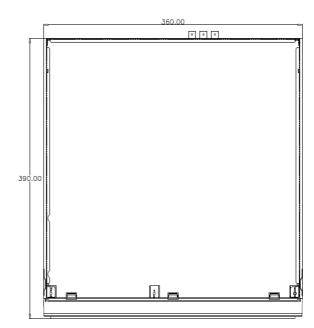
1) Front View



2) Side View

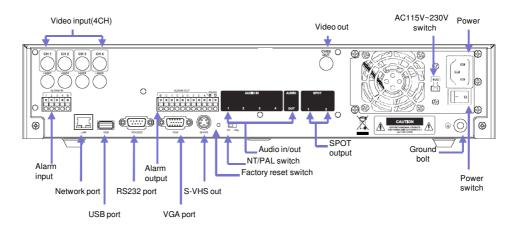


3) Top View

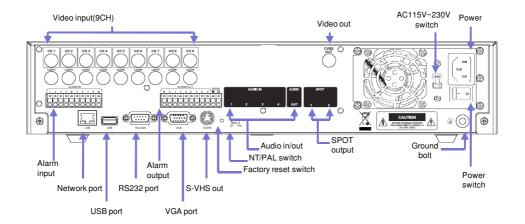


DVR rear panel (XQ Pro & Pro H.264 SERIES)

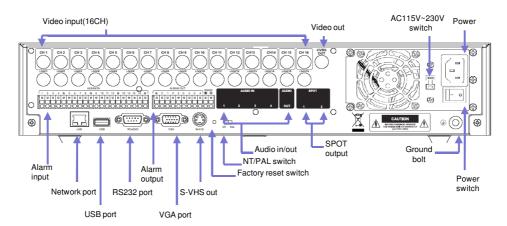
1) 4CH Rear Panel



2) 9CH Rear Panel

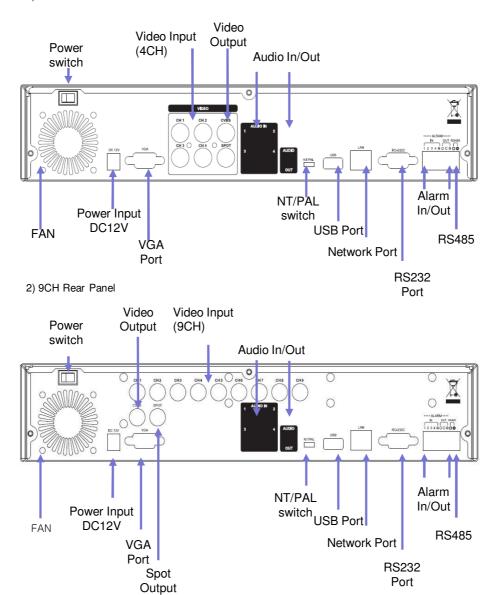


3) 16CH Rear Panel

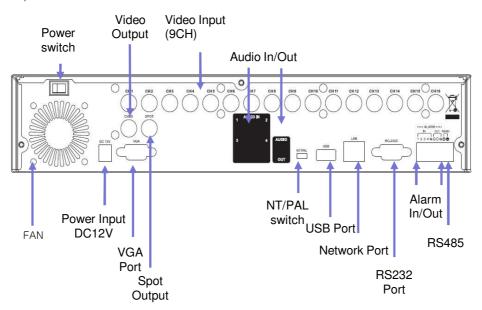


DVR rear panel (XQ LITE & LITE H.264 SERIES)

1) 4CH Rear Panel

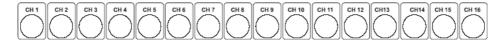


3) 16CH Rear Panel



System rear connection detail (XQ Pro & Pro H.264 SERIES)

1) Video Source Connection



It connects video sources (camera image) to BNC connector via cable.

2) LOOP OUT Connection



BNC connector of LOOP OUT can be used other device's input.

Caution: It may cause low quality of picture when connecting unconnected cable from any device to LOOP OUT BNC.

3) Monitor Connection



CVBS OUT/SPOT : It connects normal CCTV CRT monitor. S-VHS : It connects monitor that supports S-VHS(S-VIDEO) VGA : It connects PC monitor or LCD monitor (not supporting DVI)

** Default of video output is designated to CVBS OUT + VGA OUT.

For screen out's conversion, It convert to CVBS OUT only if you press front panel's DISPLAY button for more then 3 second.

The CVBS OUT's quality will be better If you use CVBS OUT only.

4) Audio Connection



It connects audio source (mic) to audio input of RCA and connects speaker to audio output.

5) Network Connection



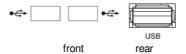
It supports 10/100 BaseT, connects Cat5 cable with RJ-45

6) RS232 port Connection.



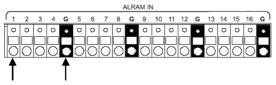
RS232 port is connected to PC and other devices for specific function and After Sales purpose.

7) USB port Connection



It consists of 2 USB (Front), 1 USB (Rear), its supported devices are such as USB mouse, USB external HDD and USB memory stick

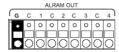
8) ALARM IN(SENSOR) Connection



It consists of ALARM IN(SENSOR) and SIGNAL+G(GND).

Ref : The spec. is Max 6V/50mA

9) ALARM OUT Connection



* Alarm output 1~4CH

It can be on/off for buzzer, headlamp etc.

Alarm input mode consists of NORMAL OPEN and NORMAL CLOSE.

Ref : The spec. Max24V/2A

9) Ground (Field GND) Connection



It connects bolt with wire to the Ground to protect DVR and user's safety from surge, static electricity and noise

10) Factory Reset Switch and NTSC/PAL Shift Switch

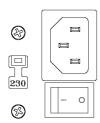


Factory Reset Switch

The factory reset switch located at the left side of NTSC/PAL switch is used to return to factory default setup values.

When you need to shift NTSC/PAL mode, turn off the DVR before shift switch, then restart the DVR.

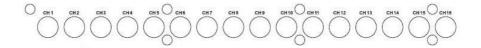
11) Power Connection <Power cord connector, AC 115V/230 switch, Power switch>



Power Supply is Micro ATX 115/230VAC , 60/50Hz , 6/3A 115/230VAC is changeable with shift switch. Main power can be turned on/off by switch.

System rear connection detail (XQ LITE & LITE H.264 SERIES)

1)Video Source Connection



It connects video sources (camera image) to BNC connector via cable.

2) Monitor Connection



CVBS/ SPOT OUT : It connects normal CCTV CRT monitor. VGA : It connects PC monitor or LCD monitor (not supporting DVI)

3) Audio Connection



It connects audio source (mic) to audio input (4CH) of RCA and connects speaker to audio output.

4) Network Connection



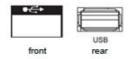
It supports 10/100 BaseT, connects Cat5 cable with RJ-45

5) RS232 port Connection.



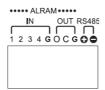
RS232 port is connected to PC and other devices for specific function and After Sales purpose.

6) USB port Connection



It consists of 1 USB (Front), 1 USB (Rear), its supported devices are such as USB mouse, USB external HDD and USB memory stick

7) ALARM IN/OUT(SENSOR) Connection



* Alarm Input 1~4CH

When an event happens DVR operates by using external device. Sensor, Switch signal (Signal GND) are connected terminal block. Ref : Spec. Max 6V/50mA

* Alarm Output 1CH

It can be on/off external device as buzzer, headlamp etc. Alarm input mode consists of NORMAL OPEN and NORMAL CLOSE. Ref: Spec. Max24V/2A

* RS485

Through Half-duplex serial communication, remote controlling is available using control system as external device, control keyboard. In addition, it is available to control PTZ (Pan/Tilt/Zoom) camera. it is connected RS485 +,- of DVR.

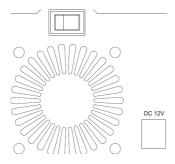
8) NTSC/PAL Shift Switch



The factory reset switch located at the left side of NTSC/PAL switch is used to return to factory default setup values.

When you need to shift NTSC/PAL mode, turn off the DVR before shift switch, then restart the DVR.

9)Power Connection

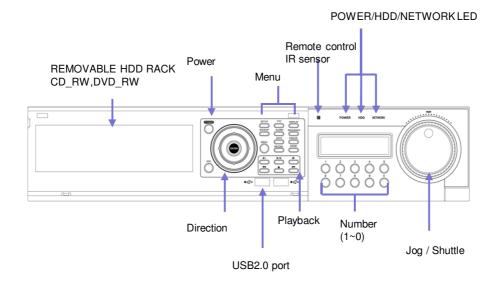


Adaptor is DC12V /5A input and Main Power can turn on/off DVR on Switch.

System Front Description (XQ Pro & Pro H.264 SERIES)

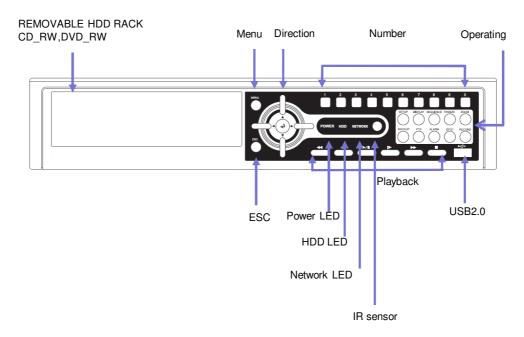


<Front DOOR CLOSE >



<Front DOOR OPEN >

System Front Description (XQ LITE & LITE H.264 SERIES)



- > Menu Button : it shows menu in live, search display (same function as right click of mouse)
- > Direction Button: It is used for movement, changing set-up, PTZ move, etc in menu. (Basic function- left, right: Movement / up, down: Changing set-up / Enter: confirmation
- Number Button: It is used for Changing to 1CH screen, direct input in set-up.
- > Operating Button : It is used for operating function as Setup, Backup etc in DVR.
- > ESC Button: It is used for exit from menu/mode, withdrawing from execution.
- > LED : It shows status of Power, HDD, Network.
- > IR sensor : it receives a signal of remote controller (remote controller is optional)
- > Playback Button: It is used for when search, playback, Pause, FF, REW.

 (It comes to live screen out of playback screen when stop button is pressed)

Remote controller Description (Optional)

ICON	FUNCTION	HOT KEY
Ф	POWER ON/OFF	
Пъ	PLAYBACK & PAUSE	LATEST SEARCH
	STOP	TO LIVE
44	REWIND	FIRST SEARCH
> >	FAST FORWORD	LAST SEARCH
4 1	STEP REVERSE	CALENDAR SEARCH
11	STEP FORWORD	EVENT SEARCH
\blacksquare	DISPLAY	
	SEQUENCE	
*	FREEZE	
Q	ZOOM	
<i>j.</i>	SETUP	
	BACKUP	
	COLOR	
(i)	STATUS	
	ENTER	
A74>	DIRECTION	
	MENU	
-	ESCAPE	
•	RECORD	



O How to change remote controller ID

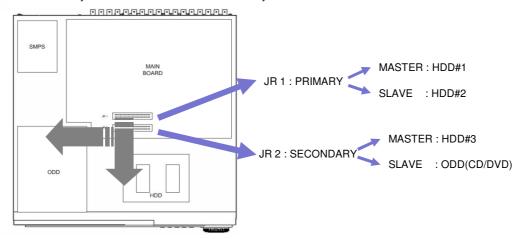
- A) Enter 'ID' button for 3seconds
- B) Power LED is lightened.
 C) Enter 2 letters of digit. (00 ~ 99) In case 00, means no ID function
- ID set is available from 01 to 99.

 D) Save setting value, then LED is off.
- E) It enables to communicate the same ID DVR
- F) LED is ON every time data is transferred.

Installation Guide for HDD & ODD devices (XQ Series E-IDE Type)

Description

1. ODD(CD-RW/DVD-RW) devices should be installed as "Secondary Slave". 2. HDD for system needs to be installed as "Primary".

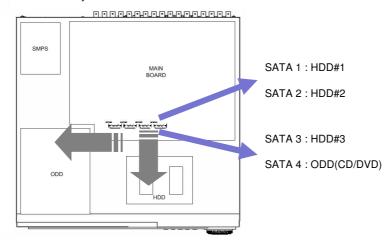


Installed	HDD	HDD		System	ODD(CD-RV Devi	· ·	
instaned		IDE	Connector	System		IDE	Connector
HDD x 1	HDD#1	PRIMARY MASTER	JR 1	SYSTEM	SECONDARY SLAVE		
LIDD o	HDD#1	PRIMARY MASTER	JR 1	SYSTEM			
HDD x 2	HDD#2	PRIMARY SLAVE	JR 1			SECONDARY	JR 2
	HDD#1	PRIMARY MASTER	JR 1	SYSTEM		JH 2	
HDD x 3	HDD#2	PRIMARY SLAVE	JR 1				
	HDD#3	SECONDARY MASTER	JR 2				

Installation Guide for HDD & ODD devices (XQ Pro & Pro H.264 Series SATA Type)

Description

- 1. ODD(CD-RW/DVD-RW) devices should be installed as "SATA 4". 2. HDD for system needs to be installed as "SATA 1".

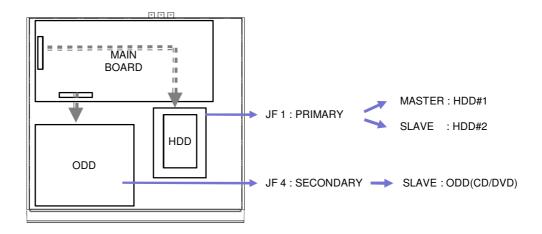


Installed	LIDD	HDD			System	ODD(CD-RW/DVD-RW) Devices
iristaneu	HUU	Connector	System	Connector		
HDD x 1	HDD#1	SATA 1	SYSTEM			
HDD x 2	HDD#1	SATA 1	SYSTEM			
HDD X 2	HDD#2	SAAT2		SATA 4		
	HDD#1	SATA 1	SYSTEM	5A1A 4		
HDD x 3	HDD#2	SATA 2				
	HDD#3	SATA 3				

Installation Guide for HDD & ODD devices (XQ LITE E-IDE Type)

Description

1. ODD(CD-RW/DVD-RW) devices should be installed as "Secondary Slave". 2. HDD for system needs to be installed as "Primary".

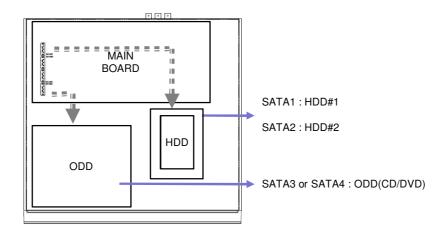


Installed	HDD	HDD		System	`	V/DVD-RW) vice
		IDE	Connector	2,000	IDE	Connector
HDD x 1	HDD#1	PRIMARY MASTER	JF1	SYSTEM		
LIDD × 2	HDD#1	PRIMARY MASTER	JF 1	SYSTEM	SECONDARY SLAVE	JF 4
HDD x 2	HDD#2	PRIMARY SLAVE	JF 1			

Installation Guide for HDD & ODD devices (XQ LITE & LITE H.264 SATA Type)

Description

- 1. ODD(CD-RW/DVD-RW) devices should be installed as "SATA 4". 2. HDD for system needs to be installed as "SATA 1".



Installed	HDD	HDD Position	System	ODD(CD-RW/DVD-RW) Device
HDD x 1	HDD#1	SATA 1 SYSTEM		
HDD#1		SATA 1	SYSTEM	SATA 4
HDD X 2	HDD#2	SATA 2		

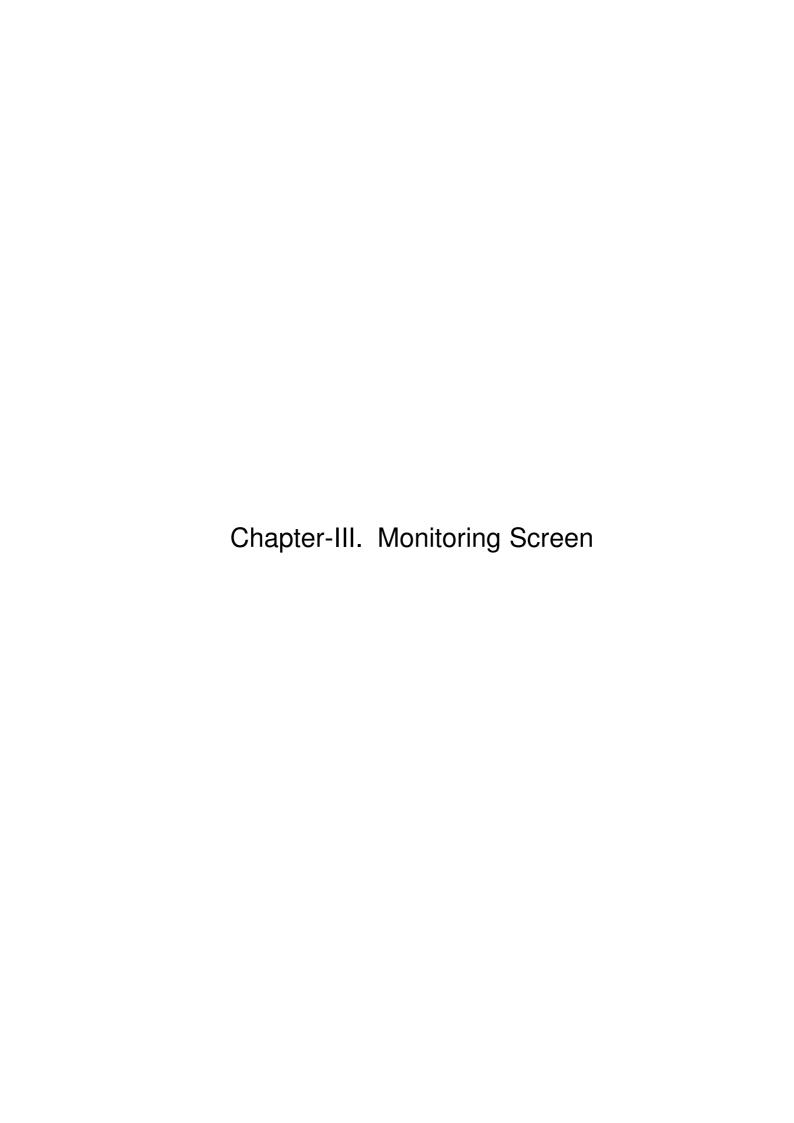
System On

- Put the power to the DVR.
- Turn on the power switch at the rear power button .
- It takes about 2minutes to boot (It may take more when network cable isn't connected)

System Shutdown

- •Select [SETUP > SYSTEM > SYSTEM SHUTDOWN] to shutdown system at login status
- Press "OK" button to confirm "Power off the system", then turn off power switch in the rear.





Monitoring Screen



Monitoring screen: it monitors each channel.

<Screen Indication>

Left Up : Camera Name

P – Pan/tilt A – Audio

Right Up : Record mode (Blue-Normal, Red-Event)

Motion status

Central : Video Loss, Hidden Camera

2 Status Bar : DVR status Indication

 $(\mathsf{Backup},\ \mathsf{HDD}\ \mathsf{usage},\ \mathsf{Current}\ \mathsf{Time},\ \mathsf{SEQUENCE},\ \mathsf{FREEZE},\ \mathsf{Login}\ \mathsf{info}.\ \mathsf{etc})$

Screen Split

Press DISPLAY button or mouse menu: changed on 1 -> 4 -> 9 -> 16 by turn





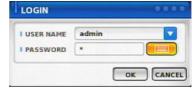


Direct Channel

- 1) Press channel No. on the remote control or front panel.
- 2) Click the screen to watch specific channel using mouse.
- ** Pressing No.1 button responds a bit delayed to wait a possible signal input of No.10~16 (approx 2.5 seconds)

LOG IN

Login to menu for setup Default: ID – admin PASSWORD - 1



▲ CAUTION

It is recommended to change ID and PW for your safety.

CAMERA ALLOCATION function (changing camera display position)



Ex) Switching camera No 4 and 12.

- 1) Press Enter in the monitoring screen, then box is selected at No.1 camera.
- 2) Locate the box to the camera No. you want to move using direction buttons.
- 3) Enter the camera number to switch
- 4) Then, selected camera is switched with the Camera number you pressed.
- 5) To exit, press ESC or Enter

Menu Bar * Click MENU button or right button of mouse



DISPLAY

1, 4, 9, 16

: Split screen change (the same as DISPLAY button)

MISCELLANUEOUS

SEQUENCE

Sequence camera group regularly

FREEZE

Pause the screen

ZOOM

1 Full Live screen available only.

Select Zoom: Press zoom button and locate the box to magnify using direction keys

Move Zoom : It can be moved using direction key after press Enter.



<ZOOM selected screen>

<ZOOM screen>

NOTICE

Zoom screen may provide low quality or be shaken as formatted digitally.

SPOT

1 spot monitors are supported and sequence / fix mode can be selected. Select the Spot monitor in SETUP>DEVICE>SPOT MONITOR.



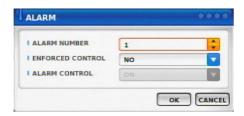
PTZ

Pan Tilt/Zoom/Focus/Iris Preset setting and moving functions are supported. Each function can be different from each PTZ protocol.



ALARM

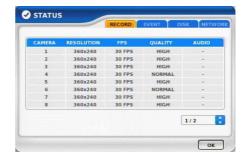
Control Alarm output function.



STATUS

RECORD

Displays current recording status



EVENT

Displays current event information (motion/alarm).



DISK

Displays current Disk information Bad Block Status



NETWORK

Displays current network information. Also displays current connected client information.



PANIC RECORD

Set recording mode in an emergency situation.

Press SETUP>RECORD> EVENT RECORD>FPS/QUALITY

SETUP

Select to enter into SETUP menu

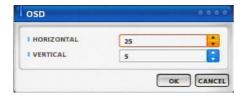
CAMERA COLOR

Changes camera screen color



OSD

Changes OSD (On Screen Display)'s position.



SEARCH

Select to enter into SEARCH menu

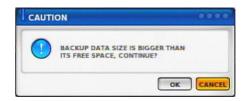
BACKUP

Select to backup recorded data.

1) Backup Device Search



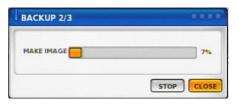
4) Warning when data size is over



2) Select data to backup



5) Make Image after pressing OK.



3) Calculate data size



6) Burning to CD



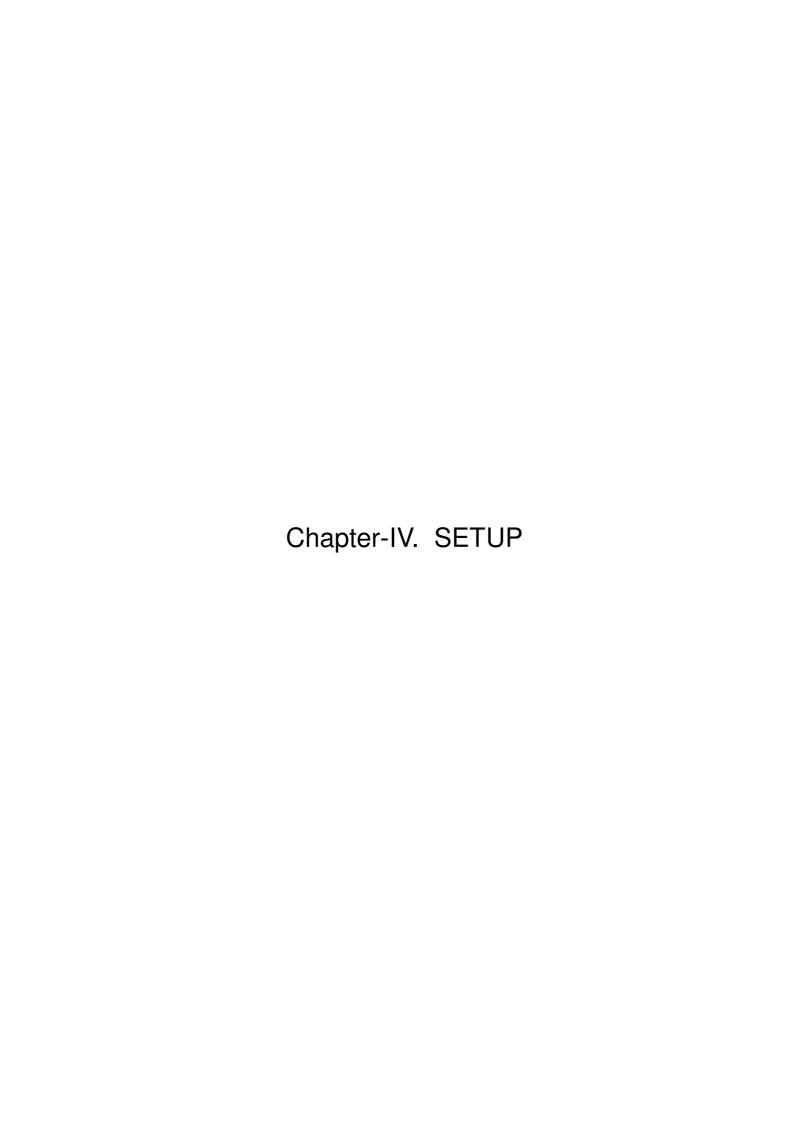
MUTE

Sound off

LOGOUT

Press SETUP>SYSTEM>USER





SETUP SCREEN



SYSTEM

Set up various system related items.

INFORMATION

DATE/TIME

DISK

USER

LOG

LOGOUT

SYSTEM SHUTDOWN

INFORMATION

INFORMATION

DEVICE NAME: User can change the DVR

name on his own.

LANGUAGE: Select language.

VERSION: Shows S/W version info.

(With UPGRADE button, you can upgrade

the newest S/W version)



NOTICE

Can't upgrade when DVR's power is on .

NOTICE

Contact manufacturer or distributors for upgraded version.

CONFIGURATION IMPORT : You can read setup values saved in USB or Initialize the setup values $\,$

CONFIGURATION EXPORT: You can record setup values in USB equipment.

DATE/TIME

DATE/TIME

Set date, time & Time zone of System.

▲ CAUTION

When you use it for the first time Set these items in advance .

Check "NO" of enable in the TIME SYNC menu, user can change DATE/TIME



TIME SYN

Synchronize time with internet time server.

▲ CAUTION

Set the GMT on the DATE/TIME list and Adjust TIME SYNC.



HOLIDAY

In the schedule record setup, it automatically converts normal date to holiday schedule.

It works when record is setup as schedule mode.



DISK

DISK

DISK TABLE

Shows current disk information connected to system.

IMPORTED : DISK installed RECORD : RECORD possible SYSTEM : DISK allotted for SYSTEM

TOTAL DISK FORMAT

Format all connected HDD disks. (When you select info column of connected DISK separately, You can format DISK one by one.

▲ CAUTION

One of DISKS should be a system disk for recording system logs & ODD Back-up & other TEMP file issuing purposes.

▲ CAUTION

Backup devices such as CD-RW/DVD-RW need to be installed as Secondary Slave. (JF 4 Connector. – Slave jumper setting)



<SYSTEM DISK selected Screen>



(01% 2007/08/14 02:12:09

OK

<On FORMAT Screen>

USER

USER

Shows currently registered user lists. User accounts can be added or deleted.

- + add account with this button.
- X Delete account with this button.



USER ADD

Possible to add user account according to authority.



CONFIRM LOGIN

When YES selected, $\,$ LOGIN needs to be confirmed every time to enter into setup / system menu.

AUTO LOGOUT ENABLE

LOGOUT automatically after a certain period of time.

AUTO LOGOUT TIME

Set idle time to LOGOUT

LOG

LOG

Shows all log infos on SYSTEM and other events

CLEAR : Remove all log info.

 $\ensuremath{\mathsf{UP/DOWN}}\xspace \ensuremath{\mathsf{button}}\xspace$: Move to next/previous log info page by page .

Move to first part of LOG info.

Move to Last part of LOG info.



LOGOUT

LOGOUT function when exiting set up

SYSTEM SHUTDOWN

SYSTEM ends.

The same as POWER OFF button of front or remote control.

NETWORK



NETWORK

Set up various NETWORK items

LAN

DDNS

E-MAIL

CALLBACK

LAN

MAX CONNECTION

Shows maximum numbers of Connectable users. (Up to 4)

STATIC TYPE

Select in case of STATIC IP. All setting values of IP, GATEWAY, NETMASK Need to be set manually.



DHCP TYPE

Select during automatic DHCP IP. User set DNS only. (under the situation of DHCP server operating mode)



ADSL TYPE

In case USER ID, P/W are needed to input such as PPPoE of ADSL line



DDNS(DYNAMIC DNS)

ENABLE

Select if you want DDNS

This is under the situation of Dynamic IP Network.

SERVER

Select DDNS server

EZDDNS: Specialized DDNS server operated by Manufacturer

→ www.ezddns.com

DYNDNS: DDNS common server



NOTICE

In order to use DDNS service Account & HOSTNAME should be registered in the server first.

HOSTNAME

User name of IP ADDRESS ON Dynamic IP circumstance. It is the same name as registered on DDNS server.

USERNAME / PASSWORD

Type the user name & pas word registered on DDNS service.

ROUTER

Check if NETWORK is through ROUTER or IP sharer .

▲ CAUTION

E-MAIL

ENABLE

Select when you need E-MAIL transmission. ALL event information is sent to admin's E-mails.



SMTP SERVER

Write the MAIL sending SMTP server name.

SENDER

Write the mail account of sender.

AUTH ENABLE

Check when you need account authority.

ID / PASSWORD

Input account & password .



CALLBACK

ENABLE

Check to use CALLBACK function .

All event or specific information are sent to "Agent" Program which is installed on P.C



CALLBACK ADD

Register IP address of P.C for callback function



DEVICE



DEVICE

These are item lists for the control of CAMERA, ALARM .

CAMERA

ALARM

DISPLAY

MAIN MONITOR

SPOT MONITOR

MISCELLANEOUS

CAMERA

ENABLE

Check if you want to use current camera

TITLE

Can change the camera name.

HIDDEN

Doesn't show the screen on live mode Even though it records and runs normally.



PTZ ENABLE

Check if you want to use PTZ function.

PTZ PROTOCOL

Select PTZ PROTOCOL. Various of protocol information including PELCO-D are implemented. If you can not find one, please contact manufacturer

PTZ ADDRESS

When you use many of same PTZ equipments You can name on these PTZ sites. Site numbers can be from $\,0$ to 255.

PTZ PORT

Adjustable related protocol BAUDRATE, DATA BIT.



ALARM

ENABLE

Check if you use specific ALARM.

TITLE

Changes connected ALARM names.

ALARM TYPE

Select specific ALARM TYPE. (NORMAL OPEN, NORMAL CLOSE)



DISPLAY

Shows all OSD display details.

CAMERA INFOMATION

Selects the display of CAMERA NO, TITLE

EVENT INFOMATION

Select OSD display for the EVENT.

STATUS INFORMATION

Shows various status of OSD.



MAIN MONITOR

Set up SEQUENCE, EVENT POPUP of main monitor.

SEQUENCE

Set up the screen switching times.

EVENT POPUP

Check if you want event pop up function.



SPOT MONITOR

Set up functions of SPOT MONITOR.

SPOT NUMBER

Select SPOT output numbers.

SPOT SEQUENCE ENABLE

Select SPOT switching channel.

FIXED CAMERA

Select the camera number not to switch .

SEQUENCE CAMERA

Select which camera to switch.

SEQUENCE DWELL

Adjust switching times .



MISCELLANEOUS

Control of remote controller/key related functions.

REMOTE CONTROLLER ID

Designate remote control ID. It is useful when many DVRs installed at the same place .

KEY TONE ENABLE

Select button volume on the front panel.



External Controller Use

Choose whether External Controller use or not.

External Controller Protocol

Choose the protocol of external controller.

Remarks: Please ask manufacture if there is no protocol for your device.

External Controller ID

When you use several external controller device, you can designate the address for each device so you can adjust it to each one them. The address is from 0 to 255.

External Controller Port

Can adjust the detailed option such as Protocol's BAUDRATE, Data BIT and so on.



RECORD



RECORD

These are control lists of recording related functions.

RECORD POLICY

RECORD

Record Policy

choose record policy, there are 2 options on data recording

- Once : Record one time without overwriting.
- Overwrite : Overwrite recording data on installed HDD

Record data Retention

Select record data retention date from 'Disable' to '365' days.

▲ CAUTION

This feature only works when 'overwrite' option selected on Record policy.

Data retention feature works as following conditions

- When boots system, changes setup, every midnight
- When changes TIME or GMT System log keeps the record data which deleted by Data retention feature.

▲ CAUTION

> Once deleted data by Data retention feature never can be recovered. Before you proceed this, please double check you recording data status and features.

NOTICE

Once you set Data retention data as 5, search available recorded data will be max. 5days 23hours 59minutes 59seconds.

Data retention data can't be over than the HDD capacity which installed in your system.







RECORD

Set up specific record type per each camera.

RESOLUTION

Set up resolution. -360*240(CIF) -720*240(HALF-D1) -720*480(D1)

RECORD MODE

Set up record type. NORMAL+EVENT is focused record mode.

NORMAL/EVENT RECORD FPS

Set up how many frames to record.

NORMAL/EVENT RECORD QUALITY

Set up record quality.

SCHEDULE

Set each week's schedule.





EVENT



EVENT

This is for the control of all event items such as MOTION, SENSOR.

MOTION

SENSOR

VIDEO LOSS

SYSTEM

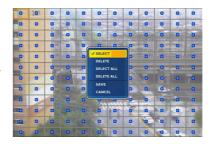
MOTION

SETUP

Set up the MOTION area & sensor.



Click mouse right or MENU KEY button to see motion area window



RECORD

Set pre& post record mode.

▲ CAUTION

When record frames are less, PRE/POST RECORD need to be set a lot more for correct record search.



ACTION

Setting up list for how to act after EVENT.

- POPUP CAMERA/DWELL
- :Set popup channel & time.
- ALARM/BUZZER DWELL
- :Set alarm & buzzer time.
- E-MAIL
- :Select EVENT info to be sent by e-mail.
- CALLBACK
- :Select EVENT info to be sent to AGENT.
- WRITE LOG
- :Select to write LOG info.



SENSOR

SETUP

Set the SENSOR name & TYPE.

NORMAL OPEN: Normally it opens and sends signals when detects sensors.

NORMAL CLOSE: Normally it closes, and it sends SIGNAL when detects sensors.



RECORD

Set Connecting camera, Pre, post record.

▲ CAUTION

When record frames are less, PRE/POST RECORD need to be set a lot more for correct record search.



ACTION

Setting up list for how to act after EVENT.

- POPUP CAMERA/DWELL
- :Set popup channel & time.
- ALARM/BUZZER DWELL
- :Set alarm & buzzer time.
- E-MAIL
- :Select EVENT info to be sent by e-mail.
- CALLBACK
- :Select EVENT info to be sent to AGENT.
- WRITE LOG
- :Select to write LOG info.



VIDEO LOSS

VIDEO LOSS can be an event type and can set camera record and action.

SETUP

Select whether you want VIDEO LOSS Function or not.



RECORD

Set connecting camera Pre& post record.

▲ CAUTION

When record frames are less, PRE/POST RECORD need to be set a lot more for correct record search.



ACTION

Setting up list for how to act after EVENT.

- POPUP CAMERA/DWELL
- :Set popup channel & time.
- ALARM/BUZZER DWELL
- :Set alarm & buzzer time.
- E-MAIL
- :Select EVENT info to be sent by e-mail.
- CALLBACK
- :Select EVENT info to be sent to AGENT.
- WRITE LOG
- :Select to write LOG info.



SYSTEM

Sets how to operate event related with DISK mainly.

DISK FULL

Sets when HDD is full of record.



DISK ERROR

Sets when there is an error on HDD.

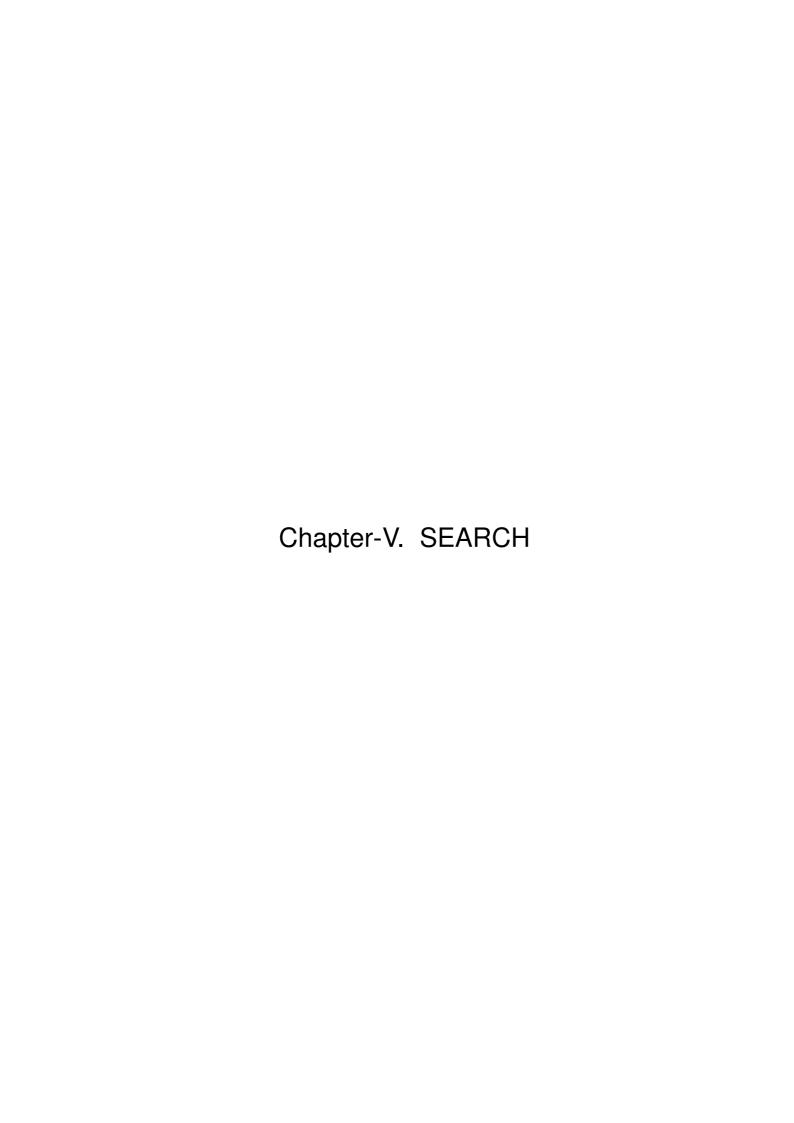


S.M.A.R.T

Enables the system to prevent possible malfunction of HDD by interfacing between system and HDD.

If you found "BAD HDD" mark in the S.M.A.R.T function, please exchange HDD as soon as possible





SEARCH



1 Playback Screen: Record Playback
2 Playback Time: Playback Time Display

3 Display Status

Playback Icon

Pause (II)

Playback (▶)

Multiple Playback(\triangleright , \triangleright , \triangleright , \triangleright , \triangleright

NOTICE

It randomly shows the first searched record file when it goes to SEARCH MODE. This type is the same as on event search , so it is possibly not to shows The exact record file searched .

SEARCH MENU



DISPLAY

Select screen division mode. (1,4 spirit)

CALENDAR SEARCH

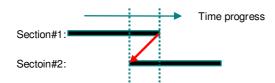
Select date , hour, minutes, seconds in turn on calendar search. When you click MINUTE, you can find specific record status as right below.



NOTICE

Section is

Generated and maintained recording data that occurs duplicating data returning previous time by any cause during DVR operating



2. CH2 2. CH2

EVENT SEARCH

It shows all EVENT record list. If you click related EVENT, It plays that event promptly.

▲CAUTION

It may not be the same channel image as shown on EVENT LIST because it shows the first display image recorded at that time zone.



SEARCH KEY

Can be selectable on EVENT search.

- -START/END
- :Set EVENT search start, end time.
- -MOTION/SENSOR/VIDEO LOSS
- :Selectable per each camera



DATE/TIME SEARCH

Search data by Date/Time . You can search the event promptly When you know the exact event time.



FIRST

Move to first part of recorded DATA.

LAST

Move to last part of recorded DATA.

BOOKMARK

Sets automatically starting time during back up. It is useful to set a bookmark as starting time while search the data.



PLAYBACK USER INERFACE

Playback buttons appears when locate the mouse pointer at the bottom of screen



Play Mode Expansion

Expand Playback Mode. Low speed Play mode is activated when use this Function.

If you don't want to use Low-speed Play, uncheck this function.

NOTICE

How to use "Low-speed Play Mode"
Choose "FF"
-> Low-speed 3 steps + speed rate 3 steps
Choose "REW"
-> Low-speed 3 steps + speed rate 3 steps



NOTICE

In case of Low-speed mode, please adjust from 1 ms to 125ms between each Frame.

DEVICE

Search internal or external SYSTEM DISK .

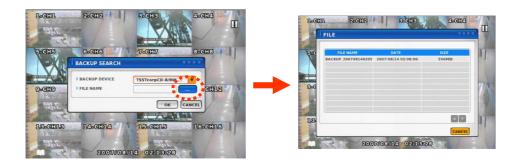
LOCAL DEVICE

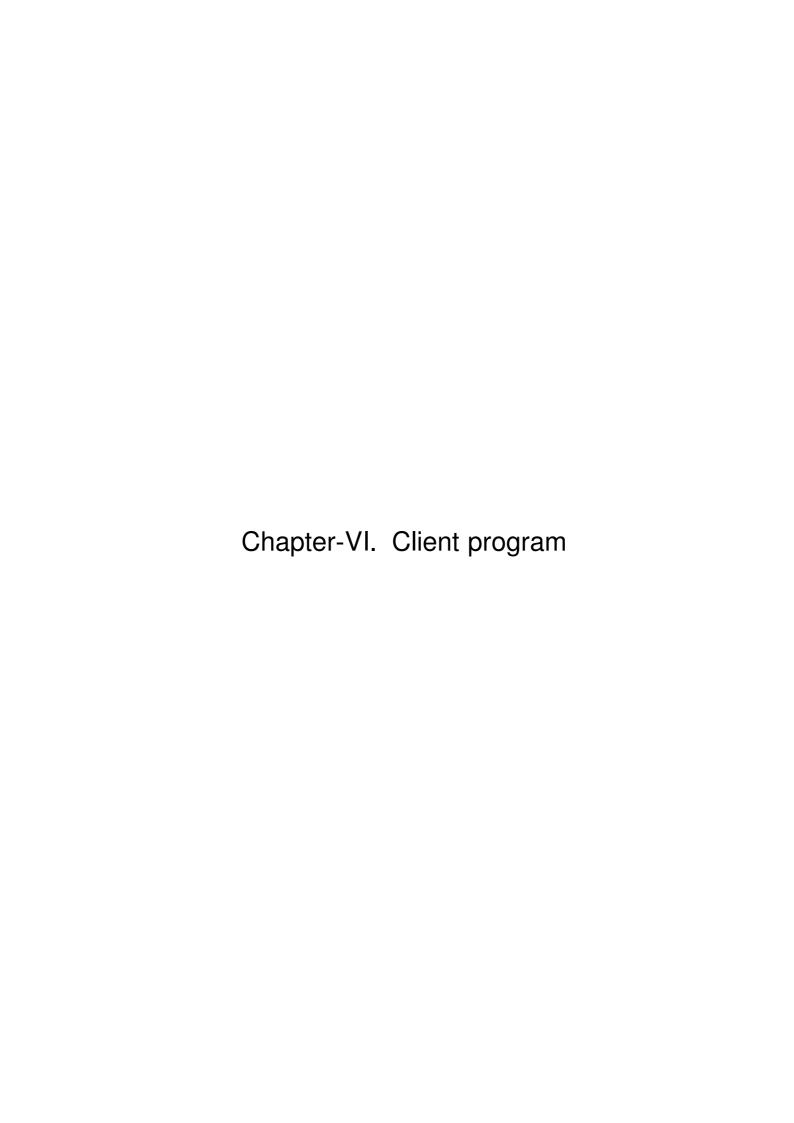
Search the data of internal DISK.



BACKUP DEVICE

Search backup device (Select when you play the backup data.) If there are various back up devices , you can select a specific one .





REMOTE



<REMOTE PROGRAM IS?>

With connected to DVR remotely, it is to perform Remote Monitoring, Remote Search, Remote Backup etc. (Please install remote program from the program

Environment conditions for Remote Program

- 1. INTEL P-4
- 2. 256M or higher main memory(512M recommend)
 3. WINDOWS O/S(WIN 2000, XP, Vista(32bit))
- 4. 32MB VGA card supports RGB (ATI series recommend)
- 5. At least 10Mbps network speed (Max 100Mbps support)

Please note that some buttons and graphics may not be activated at this moment. Those inactivated buttons will be used later when system upgrades and expands

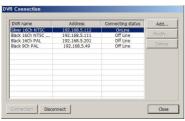


Connection information and Button



Shows DVR's name, IP address and connection status.

DVR connection button.



Add : Enter IP address and user authentication

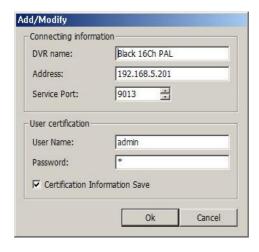
to connect DVR

Modify : Modify IP address and user authentication

of the existing list

Delete : Delete existing use.

<DVR Connection Window>



<New Connection/Modify Dialogue Window>

DVR name:

Specify a name that you can easily identify.

Address:

Specify assigned IP address to connect DVR (Type the Host name of REAL IP or DDNS.)

< What is IP address?>

A set of address system that is used to find out destination in network access via Internet or LAN.

IP address is divided into REAL IP and VIRTUAL IP, and REAL IP must be sent on DVR for the access from remote site via internet. You can be assigned with REAL IP Or DDNS service ID (Hostname of Dynamic Domain Name Server).

Service Port :Set this the same as the service port assigned to DVR.

<What is service port?>

Function to make the virtual IP available to the devices such PC or DVR with Automatic connection to the specified service port when remote access is made To router via the router or IP Share of one REAL IP. (But this function is available Only when router or IP Share supports it.)

User Name: Type the user name authorized in DVR Password: Type the password authorized in DVR

Save Authentication Information :Save Authentication Information

2 Program Information and Set up



Program Information:

Shows Remote Program's information.



<Program Information Window>



Program Setup:

Sets up Remote Program.

(Language, Display Output, Resolution, Save Path, Network Speed Etc)



Language :

To choose program's language.

Video Display:

YUV mode: According to your PC graphic card ability, the support can be decided. This mode shows faster, clear ability of image transmission than RGB mode.

RGB mode: It is widely compatible with most graphic cards, and select this when YUV mode is not supported..

Resolution from 1024X768 starts: It always shows 1024 x768 when you check..

* Above setting value will apply after restart of the program.

<Program Setup Window>

<Recommended Graphic Card>
ATI series: Radeon7000series (More then 32M), RADEON series...
NVIDIA series: M64series(More then 32M), GEFORCE series...
Etc: VGA card to support YUV mode YUV...

Data Save Place :Sets ups basic path of AVI file to save.

AVI Saving time: Sets up saving time of AVI file from remote.

Network Speed:

High Speed: System sends off images at high speed possible.

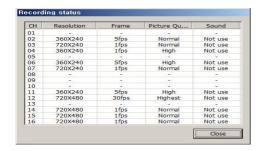
Low Speed: System sends off images at normal speed in consideration of stability.



Status Icon

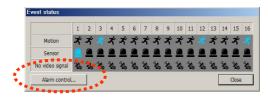


Status icon of connected DVR



<Recording Status>

Shows and check the recording status



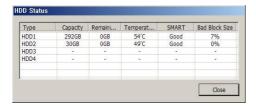
<Event Status>

Shows DVR's event status and you can check the status of Motion, Sensor, Video Loss at real time.



<Alarm Control>

You can On/Off the DVR's alarm if you press the Alarm control button.



<HDD Status>

Shows the connected DVR HDD status.

You can check temperature and status at real time.

(4) REMOTE SEARCH Execution and Set Up



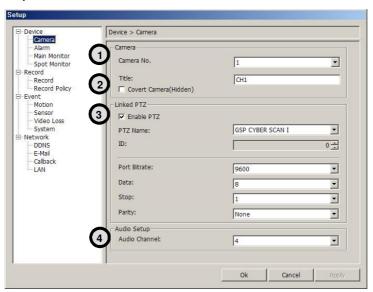
REMOTE SEARCH Execution

Set Up Execution

Pressing each button operates REMOTE SEARCH or Set Up.

REMOTE (LIVE) and REMOTE SEARCH are made up in separate program.

Remote Set Up <Camera>



- No : Item to select camera No
 To set up all the camera equally, Choose "select all"
 - ☑ Enable : Selection item to use camera, Removing the check stops using that channel.
- Title: Item to revise/type the camera name.
 - Security: When checked, It displays 'Hidden' on monitor. (though it keeps recording)
- 3 Link PTZ : Sets up PTZ camera.
 - PTZ address: Item to assign PAN TILT address per camera.

 Name :Item to check PTZ Camera's model name.

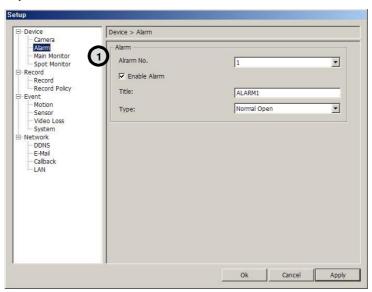
 ID : Item to select PTZ address per camera.

Port bit rate : Item to select the PTZ's port bit rate.

Data bit :Item to select data bit. Stop bit : Item to select Stop bit. Parity : Item to select Parity.

4 Audio: Item to select which audio channel to be used among total 4 audio inputs.

Remote Setup <Alarm>



1

No: Item to select Alarm No.

To set up all the camera equally, Choose "select all"

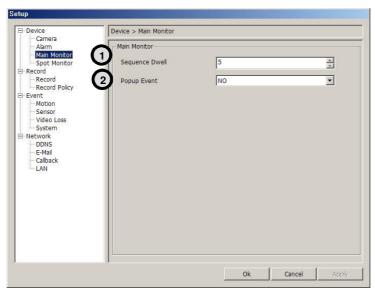
☑ Enable: Item to select to use Alarm, Removing the check stops using that channel.

Title: Item to type Alarm's name.

Type: Item to select Alarm's type.

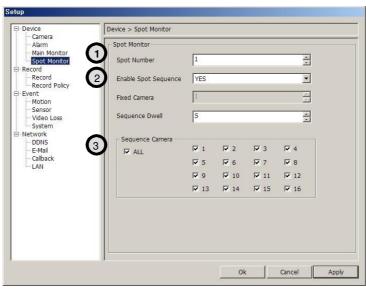
- Normal Open : Type of alarm open in general situation.
- Normal Close: Type of alarm close in general situation.

Remote Setup <Main Monitor>



- Sequence Dwell : Time setting for "screen change"
- Popup Event : You can choose whether you use "Popup Event" or not.

Remote Setup <Spot Monitor>



Spot Number: You can select Spot Monitor Channel.

Please choose Spot Monitor number which you want to set.

Enable Spot Sequence: You can choose "Fix" or "Change" of Spot Monitor.

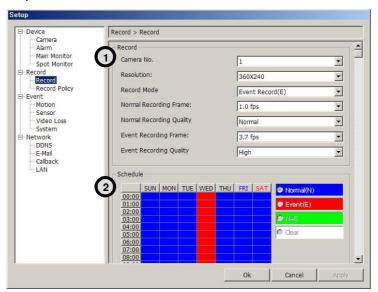
YES : Change NO : Fix

Fixed Camera: If you choose the enable Spot Sequence as "NO", the selected camera's output is fixed.

Sequence Dwell : If you choose the enable Spot Sequence as "YES", the output time for each channel can be selected.

3 Sequence Camera: Can be activated when you check "Enable Spot Sequence as ":YES". the output time for each channel can be selected.

Remote Set Up <Record>



1

No : Item to select Camera No.

To set up all the camera equally, Choose "select all"

Resolution: Item to change the resolution.
- NTSC: 720X480, 720X240, 360X240
- PAL: 720X576, 720X288, 360X288

Normal Record Frame :Item to select normal record frame. Normal Record Quality : Item to select normal record quality.

Event Record Frame :Item to select Event (Motion + Sensor + Video Loss) record speed. Event Record Quality : Item to select Event (Motion + Sensor + Video Loss) record quality.

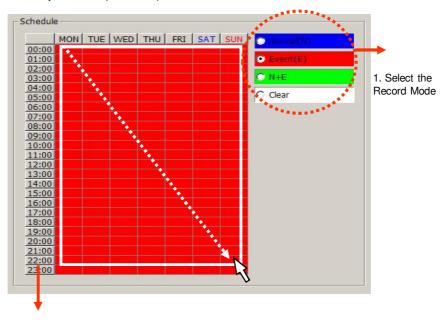
Schedule: Item to select record schedule.

- Normal : Always Record

Event : Motion, Sensor, Video LossN + E : Always + Event Record

- Clear : Delete the current record schedule.

Remote Set Up <Record (Timetable)>



2.Select Day/Time

Schedule Indication by color

Normal(N): (Blue)

Event(E): (Red)

Normal(N) + Event(E) : (Green)

Clear (No Record): (White)

< Schedule of Record>

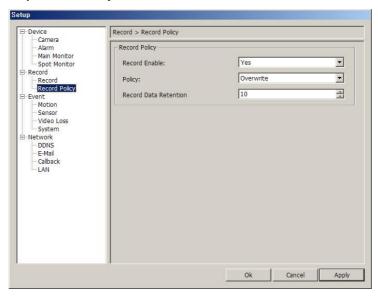
It is the list of selection in which schedule to use in operating the relevant camera channel.

First select the item you need among Normal time, Event and Normal time + Event.

Then drag mouse from the wanted position on time line.

* To edit schedule record, you need to set record as schedule mode.

Remote Set Up <Record Policy>



Record Policy: Item to select record policy

Overwrite: When HDD capacity is almost consumed, It erases old data and record new. Single Record: To stop recording on 100% of HDD capacity.

Record Data Retention: Please choose "Record Data Retention" from "Non-use" to "365". Please refer to page 61 for more detailed explanation.

▲ CAUTION

Please ask the agency and store about exact usage because you can't recover the deleted data by "Record Data Retention"

Remote Set Up <Motion>



Camera No : Item to select Camera No.

To set up all the camera equally, Choose "select all"

☑ Enable: Selects to use motion sensor, Removing the check stops using that channel.

Sensitivity: Adjusts the sensitivity in motion detection.

There are 5 steps and as the number increase, it gets more sensitive.

Area : Item to select motion area.



Area is selected when drag the mouse on the image.



Remote Set Up <Motion (Link Record)>



Link Camera:

Selects which channel to record when motion is detected on the relevant channel.

※ Multiple selection possible

Pre Record : Sets pre-event recording time. (Max 5 second) Post Record : Sets post-event recording time. (Max 60 second)

Remote Set Up <Motion (Link Action)>



Popup Camera:

Selects which channel to Popup when motion is detected on the relevant channel.

★ It works when the Popup setting is 'Yes' on DVR.

Popup Time : Sets Popup time

Link Alarm:

Select Alarm to be linked when motion Is detected.

※ Multiple selection possible

Alarm Time : Sets Alarm output time. (Max 30 second) Buzzer Time : Sets buzzer output time in DVR. (Max 30 second)

Mail: When motion is detected, the log is sent to the selected e-mail.

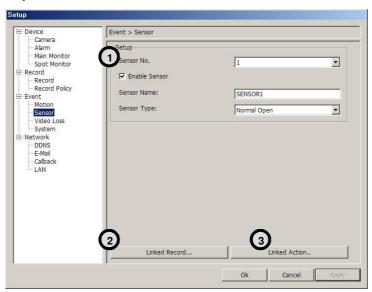
Call Back: When motion is detected, the log is sent to the selected IP address.

Log: Item to save Log writing when motion detected.

(It is not recorded on the system Log but used for event search.)

Motion detection function is a mode to detect in accordance with the amount of color Changes of image. So, please be careful that DVR keeps recording as continuous motion when the image of camera is blinking caused by light problem or camera Auto Iris problem.

Remote Set Up <Sensor>



Sensor No : Sets sensor No.

To set up all the camera equally, Choose "select all"

☑ Enable : Selects to use sensor, Removing the check stop using relevant sensor.

Title: Item to select sensor's name. Type: Item to select sensor type.

Normal Open: Type of Alarm open in general situation.
Normal Close: Type of Alarm close in general situation.

Remote Set Up <Sensor (Link Record)>



Link Camera:

Selects which channel to record when sensor is detected on the relevant channel.

※ Multiple selection possible

Pre Record : Sets up pre recording time. (Max 5 second)
Post Record : Sets up post recording time. (Max 60 second)

Remote Set Up <Sensor (Link Action)>



Popup Camera:

Selects which channel to Popup when sensor is detected on the relevant channel.

* It works when the Popup setting is 'Yes' on DVR.

Popup Time:

Selects Popup time.

Link Alarm:

Selects Alarm to be linked when sensor is detected.

★ Multiple selection possible

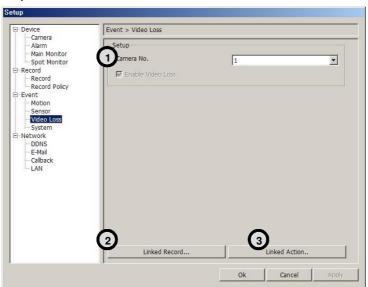
Alarm Time: Selects Alarm output time. (Max 30 second) Buzzer Time: Selects buzzer output time. (Max 30 second)

Mail: When sensor is detected, the log is sent to the selected e-mail.

Call Back: When sensor is detected, the log is sent to the selected IP address

Log: Item to save Log writing when sensor detected (It is not recorded on the system Log but used for event search.)

Remote Set Up <Video Loss>



Camera No : Item to select camera No.

To set up all the camera equally, Choose "select all"

▼ Enable : Item to enable the Video Signal Loss function

Remote Set Up <Video Loss(Link Record)>



Link Camera:

Selects which channel to record when video loss is detected on the relevant channel.

※ Multiple selection possible

Pre Record: Sets up pre recording time. (Max 5 second)
Post Record: Sets up post recording time. (Max 60 second)

Remote Set Up <Video Loss (Link Action)>



Popup Camera:

Selects which channel to Popup when video loss is detected on the relevant channel.

★ It works when the Popup setting is 'Yes' on DVR.

Popup Time : Selects Popup time.

Link Alarm:

Selects Alarm to be linked when video loss.

※ Multiple selection possible

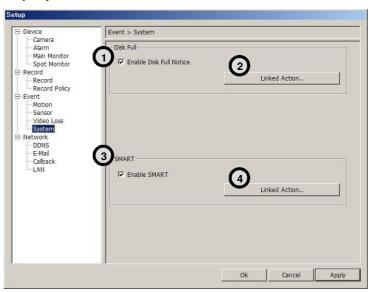
Alarm Time : Selects Alarm output time (Max 30 second) Buzzer Time :Selects buzzer output time (Max 60 second)

Mail: When video loss occurred, the log is sent to the selected e-mail

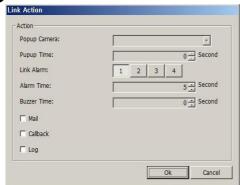
Call Back: When video loss occurred, the log is sent to the selected IP address.

Log: Item to save Log writing when video loss occurred. (It is not recorded on the system Log but used for event search.)

Remote Set Up <System>



- DISK FULL : List for all installed HDD disks.
 - Disk Full Notice Enable : Activate Disk Full Notice when installed disks are full.
- 2 Remote Set Up <Disk Full (Link Action)>



Popup Camera : Not available as of now

Popup Time : Not available as of now

Link Alarm : Selects which Alarm to be linked when all installed HDD disks are full.

※ Multiple selection possible

Alarm Time : Selects Alarm output time. (Max 30 second) Buzzer Time : Selects buzzer output time (Max 30 second)

Mail: When all installed HDD disks are full, the log is sent to the selected e-mail

Call Back: When HDDs are full, the log is sent to the selected IP address.

Log: Selects to save Log writing when installed HDDs are full.
(It is not recorded on the system Log, but used for event search.)

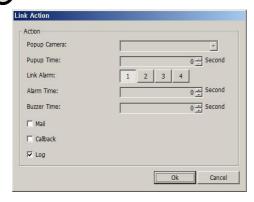
3 SMART

▼ Enable SMART : Select to use SMART feature.

SMART Function??

It checks the physical errors and observes the HDD disk continuously such as Temperature, I/O device errors and general conditions of the HDD disk.

Remote Set Up <SMART (Link Action)>



Popup Camera : Not available at this moment

Popup Time :

Not available at this moment

Link Alarm:

Selects which alarm to be linked

※ Multiple selection possible

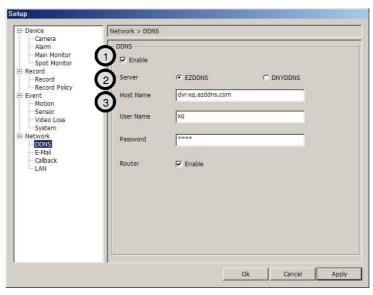
Alarm Time : Sets Alarm output time (Max 30 second)
Buzzer Time : Sets Buzzer output time (Max 30 second)

Mail: When smart related problem occurs, the log is sent to the selected e-mail.

Call Back: When problem occurs, the log is sent to the selected IP address.

Log: Selects to save Log writing when smart related problem occurs (It is not recorded on the system Log but used for event search.)

Remote Set Up <DDNS>



DDNS: Select to enable DDNS function.

Enables the network access from Dynamic IP environment.

2 Server : Select Server for DDNS

EZDDNS : DDNS server operated by the manufacturer (recommended) \Rightarrow www.ezddns.com

DYNDNS: DDNS public server

Host name: The name used in the Dynamic IP environment instead of IP Address.

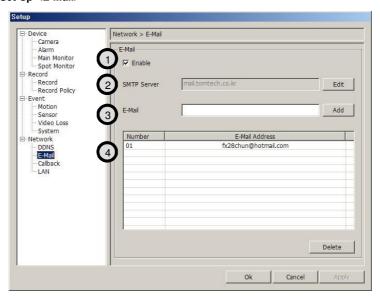
To input the Hostname registered on the DDNS Server.

(Ex. dvr-xq.ezddns.com)

 $\textbf{User Name} \ / \ \textbf{Password} \ : \textbf{Input the ID} \ \text{and Password created while signing up to the DDNS Service.}$

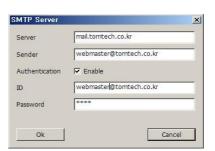
Router: To select the Network Environment when using Router or IP Sharer.

Remote Set Up <E-Mail>



- **E-mail**: To be selected for activating E-mail notification function
- SMTP Server : To register the SMTP Server that manages the mail notification.

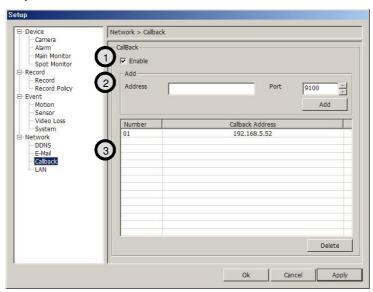
ID/ Password: Enter the ID and Password.



- 3 E-mail: Register the E-mail(s) authorized for the receipt of information.
- List of Registered E-mails: The list of the registered e-mails authorized to receive information .

 The unnecessary items can be deleted.

Remote Set Up <Callback>



Callback : Select to activate CALLBACK function.

Function that enables delivery of the various Events occurring in the System to the Agent Programs set in the PC.

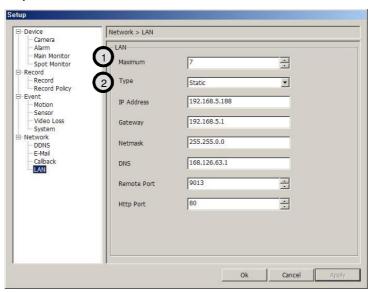
Add Callback: Select to register IP Address of computer that will use CALLBACK function.

PORT: Adjusts DVR and PORT.

Registered Callback List: The Registered Callback list authorized to receive information .

The unnecessary items can be deleted.

Remote Set Up <LAN>



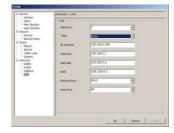
1 LAN : LAN Setting.

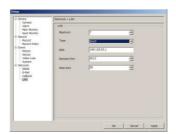
Maximum User Number: Indicates the maximum number of CLIENTS that can be connected. (Max. 7)

NOTICE

Regardless of the number of Client connections only one Client will be able to connect to XQ Search. Therefore if once Client PC is using XQ Search the other Client PC can only connect to XQ Live.

Connection Type: Static, DHSP, ADSL(PPPoE).







STARIC DHCP ADSL(PPPoE)



5 PLAY & PAUSE

Starts or stops image transmission on the Remote Live screen. This starts automatically when search or set in the setup menu.





Starts to play when pressed.

Stops to play when pressed.

AUDIO Transmission

Controls Audio volume. **★Audio signal is sent on full screen mode only.**



(7) Right Mouse Click Action

When the right button is clicked on Remote Live, the following menu below appears and the following functions can be used.



Whole Screen: Hides the function button and shows the image full screen.

AVI Saving Begins: Starts AVI saving of the channel Selected. **X** Audio signal is saved on full screen mode only.

Image Saving.. : Save image file of channel selected (Save JPEG or BMP)

: Print current image of the channel.



8 Channel Button

Moves to the channel selected and it has the same function as double click the left mouse button on the selected channel.



9 Layout Modify Button

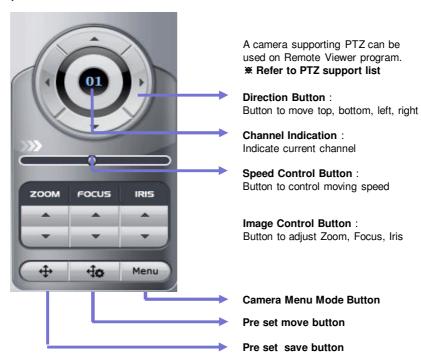
Screen Division Button: Selects desirable screen division. Whole Screen: All buttons are hidden and the screen displays full.



※ Left double click of mouse returns to the previous screen from whole screen.



10) PTZ Operation



Use of Camera Menu Mode Button



The above function can be used only if it's supported by PTZ camera.

Preset Move: Move to saved preset No. Preset Save : Save preset No.



<Preset Move>



<Preset Save>

Remote Search



1 Playback Display



2 SECTION

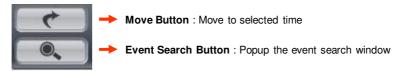


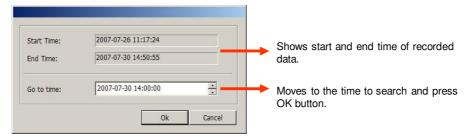
Selects section

Section is created when Date/Time is changed to former times. Former Date/Time will be kept in section 0. Newly set Date/Time will be kept in section 1......

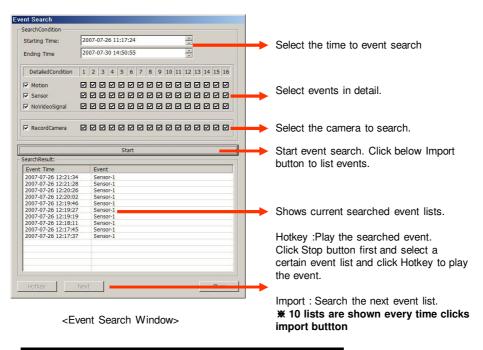


Move & Event Search





<Move Window>



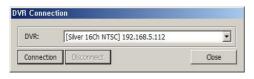
Please make sure to select "WRITE LOG" of the system. If not, event lists aren't searched.



Connection Information and Button



Button to connect to other DVR in the saved list



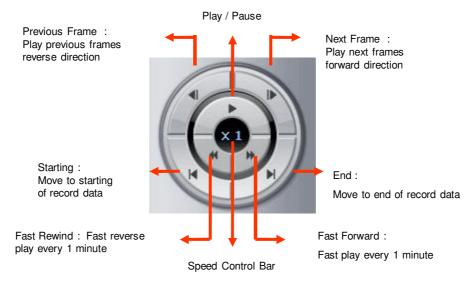
<Connection List Window>

When many DVRs are registered in the DVR list, each DVR can be remotely searched without closing The Remote Program.

The linked list s can't be edited while search.



Playback Button





Screen Division Button



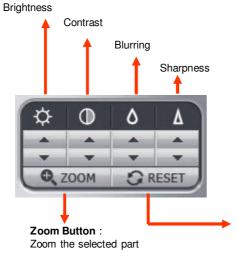
Screen Division Button

7 AUDIO Play

Controls audio volume. ***Audio signal is sent only on one full screen.**



8 Image Control Button



Brightness adjustment button :

Adjusts the brightness of playing images.

Contrast adjustment button :

Adjust the contrast of playing images.

Blurring adjustment button:

Adjusts the blurring of playing images.

Sharpness adjustment button:

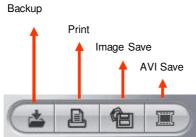
Adjust the sharpness of playing images.

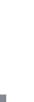
Reset button :

Initializes the adjusted image to original image.



Saving Button





Print: Print the searched images.

compressed image file.

Backup the searched image as

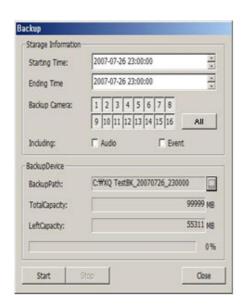
Image Save :

Back Up :

Saves the searched images as Image File. (Save JPEG or BMP)

AVI Save :

Saves the searched images as AVI file.



<Backup Window>

Storage Information:

Select start and end time to backup image.

Backup Camera:

Select the camera to backup

Including:

Selects audio and event to include.

Backup Path:

Selects the path to backup

Total Capacity:

Shows total capacity

Used Capacity:

Shows used capacity

Left Capacity:

Shows remaining capacity



<Preview Window>



< Image Save Window>

Preview:

Preview of the images to print, which is printed with various information written on the bottom of the image.

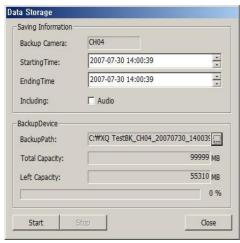
Image Format

JPG format :
Definition has a little loss due to loss compression method, but archiving size is small.

BMP format :

Archiving size is a bit big due to no compression, but it can be saved as higher definition than JPG.

Saving Path: Selects the path to backup.



<AVI Save Window>

Storage Information

Selects camera No and start/end time to

Including:

Selects audio to include.

Back Up Patch:

Selects the path to backup

Total Capacity:

Shows total capacity

Left Capacity:

Shows remaining capacity

Check "Caption option" of Media Player to display time/date of playing AVI file.



When the right button is clicked, the following menu below appears and the following functions can be used



Original Size: Shows original size.

AVI Saving : Starts to save AVI file

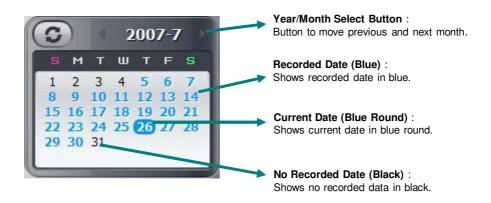
 $\ensuremath{ t \#}$ Audio signal is save only on full

Image Saving.. : Save image of the selected camera (Save JPEG or BMP)

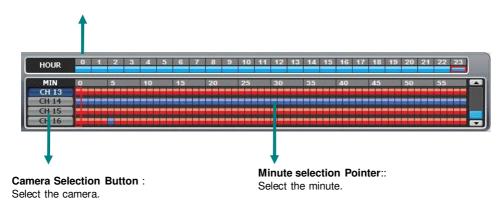
Printing.. : Print current image of the camera



Selects year/month/day and hour/minute to search the recorded data.



Timeline Display: Displays in 24 hours system and one each line is 1 hour unit.

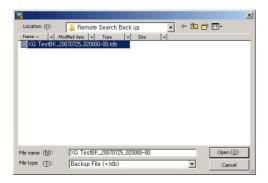




12 Backup Playback



Backup Playback Button: Click to backup playback



Select the backup data to play.

Backup playback can play a data of Image file.

Windows Media Player can play a data of AVI image files .

PLAYER



1 Search screen

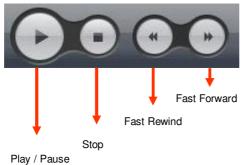








Play button



i lay / i ause

- 4 Sound volume Control Button
 - ★ Audio signal is sent only on one full screen.



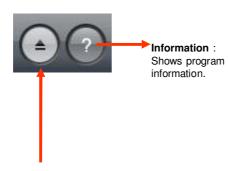
5 Layout Button



Layout button: Button to select screen division mode.



Call function/Program Info





<Program Info Window>

Call Function Button :

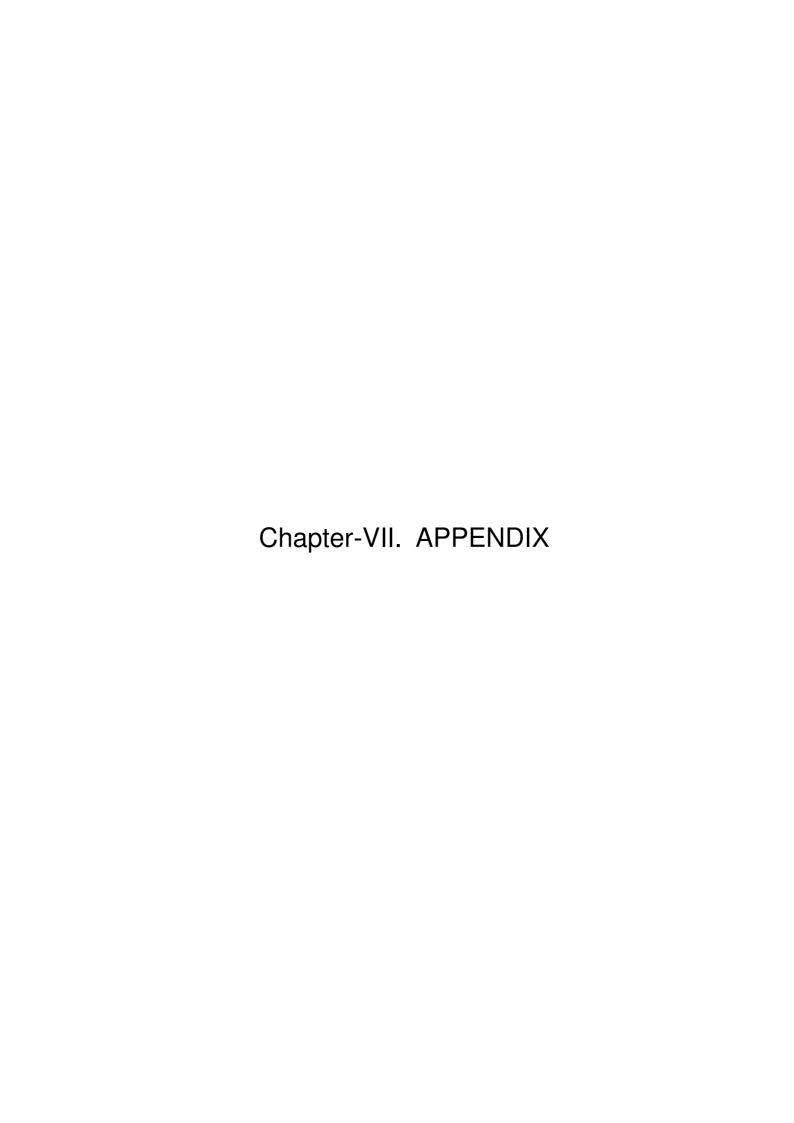
Button to call in the back up file.



Select the backup data to play

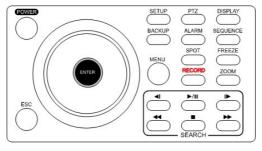
Backup playback can play a data of Image file.

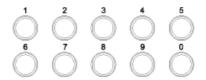
Windows Media Player can play a data of AVI image files .



APPENDIX

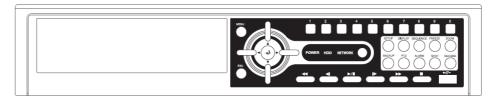
Front Key Explain





ITEM	DETAIL	REMARK
Power	- Power On/Off	
ESC	- Exit menu/mode - Return to search mode during playback	
ENTER	- Select each menu - Confirm input setup value - The Same function as mouse left click	
SETUP	- Enter into Setup menu	
BACKUP	- Backup menu in search mode - Prompt backup in playback mode	
MENU	- Menu setup - The same as mouse right click	
PTZ	- Enter into PTZ control mode	
ALARM	- Enter into Alarm control mode	
SPOT	- Spot monitor control	
RECORD	- Panic Record On/Off	
DISPLAY	- Display screen division mode	
SEQUENCE	- Start/end sequence display mode	
FREEZE	- Pause screen display	
ZOOM	- Zoom In/Out screen display	
BACK STEP	- Reverse step playback	CALENDAR SEARCH
PLAY/PAUSE	- Play/pause	LATEST SEARCH
STEP	- Step playback	EVENT SEARCH
REW	- Rewind	FIRST SEARCH
FF	- Fast forward	LAST SEARCH
0 ~ 9	- 0 ~ 9	

Front Key Explain



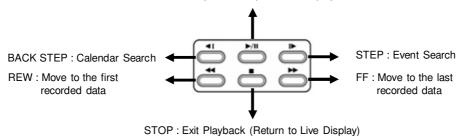


ITEM	DETAIL	REMARK
ESC	- Exit menu/mode - Return to search mode during playback	
ENTER	- Select each menu - Confirm input setup value - The Same function as mouse left click	
SETUP	- Enter into Setup menu	
BACKUP	- Backup menu in search mode - Prompt backup in playback mode	
MENU	- Menu setup - The same as mouse right click	
PTZ	- Enter into PTZ control mode	
ALARM	- Enter into Alarm control mode	
SPOT	- Spot monitor control	
RECORD	- Panic Record On/Off	
DISPLAY	- Display screen division mode	
SEQUENCE	- Start/end sequence display mode	
FREEZE	- Pause screen display	
ZOOM	- Zoom In/Out screen display	
BACK STEP	- Reverse step playback	CALENDAR SEARCH
PLAY/PAUSE	- Play/pause	LATEST SEARCH
STEP	- Step playback	EVENT SEARCH
REW	- Rewind	FIRST SEARCH
FF	- Fast forward	LAST SEARCH
0 ~ 9	-0~9	

Hot Key to control the playback and display output on search display (XQ SERIES)

ITEM	DETAIL	REMARK	
DISPLAY	- Display mode to exclusive CRT Set Up/Cancel	- Better quality then VGA	
BACK STEP	- Enter to calender search mode	- Enter from search mode	
PALY/PAUSE	- Move to ending playback	- Enter from search mode	
STEP	- Enter to event search mode	- Enter from search mode	
REW	- Starting to Playback data	- Enter from search mode	
FF	- End to Playback data	- Enter from search mode	

PLAY/PAUSE: Play from the position that played the latest



OTOT : Exit i laybaok (Notam to live bioplay)

Hot Key to control the playback and display output on search display (XQ LITE)

ITEM	DETAIL	REMARK	
BACK STEP	- Enter to calender search mode	- Enter from search mode	
PALY/PAUSE	- Move to ending playback	- Enter from search mode	
STEP	- Enter to event search mode	- Enter from search mode	
REW	- Starting to Playback data	- Enter from search mode	
FF	- End to Playback data	- Enter from search mode	

Product Warranty

Product Name		Model		
Serial NO.		Date of purchase		
Dealer	Address		Address	
Customer name	Address		Address	

Warranty period - 2 year

As warranty period is counted from the date of purchase, it is recommended that you get the date of purchase to be written.

(If you are not sure about the date of purchase, the warranty period is counted from the date when six months are passed from the date of manufacture.)

Free Service

We will recompense in accordance with free service or Consumer Damage Compensation, Ministry of Finance and Economy's Notification, in case there is any failure of performance or function, which occurred naturally under normal use of product within two years (warranty period) after purchasing the product.

Pay service

- 1. In case of failure due to consumer's mistake
 - -in failure due to the careless handling, repair or conversion of the consumer
 - -in failure due to the repair by unqualified person instead of dealer or service center engineer
 - -in failure or damage due to falling or such things during relocating after installing
 - -in failure due to abnormality of used power or inferiority of the networks and apparatus that is attached to this product
- 2. In case of other reasons such as disasters (fire, salt damage, flood, landslip, etc....)