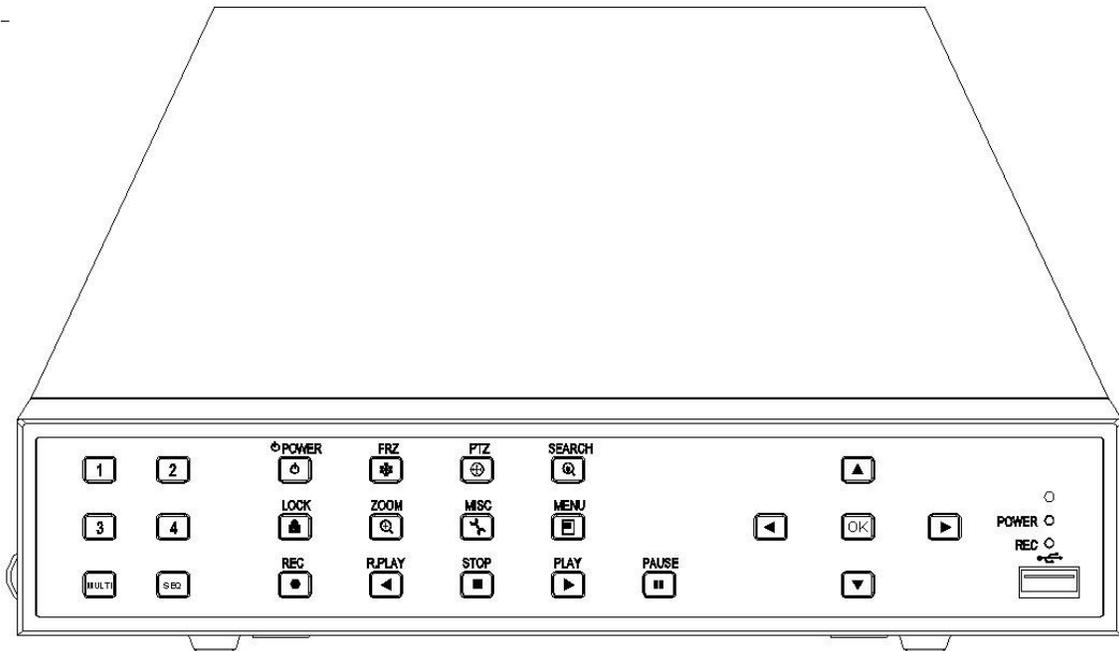


QUICK MANUAL

Real time Digital Recorder

(FULL D1 4 Channel, MPEG-4)



Safety

WARNING

Please follow instruction to prevent any kind of damage or loss. If you do not follow this instruction, it might bring severe damage or loss.



The symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.



The symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



CAUTION:

To prevent electric shocks and risk of fire hazards, do NOT use other than specified power source.

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

Caution -- Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution -- Danger of explosion, if battery is incorrectly replaced.

Replace only with the same or equivalent type.

Warranty will be made void if the product is disassembled or manipulated by the user.

Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings.

Install in accordance with the manufacturer's instructions.

- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



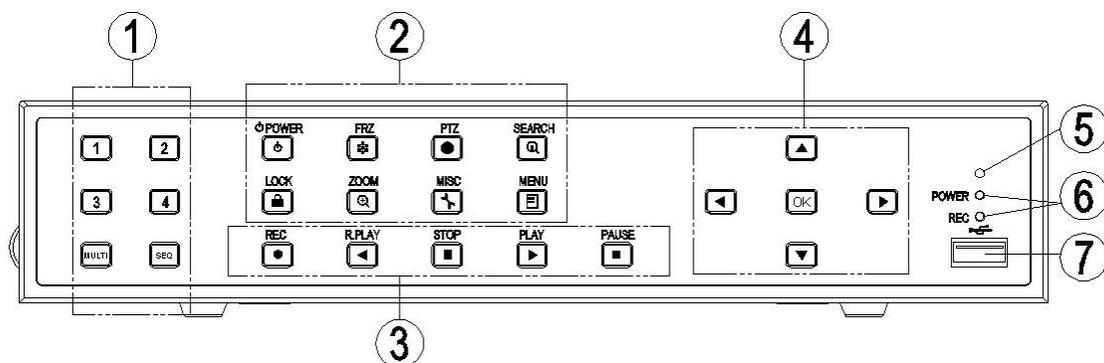
Model	4ch DVR
Image System	NTSC, PAL selectable
Multi-tasking	Quadplex
Video Channel	4CH Composite BNC
Video Output	1CH Composite BNC, 1CH VGA
Video Compression	MPEG-4
Recording Resolution	720x480, 720x240, 360x240 (NTSC) / 720x576, 720x288, 360x288 (PAL)
Recording Quality	4 Levels (Normal, Enhanced, Fine, Super Fine)
Max Display Speed	120 fps (NTSC) 100 fps (PAL)
Max Recording Speed	120 fps at Full D1 (NTSC) 100 fps at Full D1 (PAL)
Max Playback Speed	120 fps (NTSC) 100 fps (PAL)
Time Laps Recording Interval (fps)	1,2,3,4,5,6,8,10,15,30 (NTSC, 10 Steps) 1,2,3,4,5,7,9,13,20,25 (PAL, 10 Steps)
Recording Mode	Schedule, Event (Sensor, Motion Detection), Manual, Continuous, Continuous+Event
Playback Search	Calendar, Event (Sensor, Motion Detection)
Playback Speed	x1, x2, x4, x8, x16, x32, x64, x128, Field by Field (Forward, Backward)
Slow Motion	x1/4, x1/2 (Forward Only)
Sensor Input	4 (NO/NC Selectable)
Alarm Output (Relay)	1 (NO/NC), 4 TTL
Audio In/Out	4 CH Input / 1CH Output
Network	10/100Base-T (Static, DHCP, PPPoE, E-mail), DDNS server available
Motion Detection	22x15 (NTSC) / 22x18 (PAL), 8 Level Sensitivity
Hard Disk	Max. 1 EA
Backup	USB(Ver2.0), Network
Watermarking	Still Image Backup
PTZ Control	RS-485
Serial Port	RS-232(TTL Level, Console)
System Log	Video Loss, Power On/Off, HDD Full, HDD Fail, Menu Called, Reset HDD Format, Reset SW Upgrade, Email Fail
Language	Korean, English, Japanese, French, Spanish, German, Polish, Italian, Russian, Slovakia
S/W Upgrade	Network, USB Memory Stick
Password Function	Power OFF, MENU, Record OFF, Key Lock
Power Source	Free Voltage DC Adaptor (100 – 240VAC, 50Hz/60Hz, 42W)
Dimension	280(W) x 290(D) x 55(H)
Operating Temperature	5°C ~ 40°C
Weight	3Kg (net)

- Design and specifications are subjected to change without notice.

1 Components

- DVR
- Power cable
- DSUB-25 connector for EXTENSION Port
- Quick Manual
- Software CD (RAMS, UniPlayer, Quick Installer and Operation Manual)

2 Name, function & connections



2.1 NUMERIC BUTTON

2.1.1 1,2,3,4 : It can be used for channel & password change.

2.1.2 MULTI : Selection Button for Screen Division for Live Viewing mode.

2.1.2.1 Live Mode : Selection of Screen Division for Live Viewing mode

2.1.2.2 In order to go back to previous mode, user is required to push "MULTI" button, after selecting a specific channel.

2.1.2.3 Playback Mode : Selection button for Screen Division for playback of recording file. If you select specific one channel and in order to get back to each divided channel, you can just click "MULTI" button.

2.1.3 SEQ : Sequential view under live mode. Viewing of all active video input channels sequentially.

2.1.3.1 If you click "SEQ" button one time, each single channel can be viewed sequentially.

2.1.3.2 This button also can be used for all motions are release purpose on motion detection set up menu.

2.2 FUNCTION BUTTON

2.2.1 POWER : Press this button to power on/off.

2.2.1.1 Soft Power method is adapted. Therefore, If Power button is pressed, user is asked to input Password, before Power off.

2.2.2 FRZ(FREEZE)

2.2.2.1 Press button once to freeze the frame at live mode. Press again to return.

2.2.2.2 Exchange of video input type : Press power button with "FRZ" button from NTSC to PAL or PAL to NTSC.

2.2.3 PTZ(Pan/Tilt/Zoom) : Press once to access the Pan/Tilt/Zoom/Focus control mode. Press again to exit.

2.2.4 SEARCH : Press once to open the menu to search for recorded files.

2.2.5 LOCK : Press this button to lock/unlock the buttons of DVR, in order to prevent the use by Unapproved user.

2.2.5.1 If the "LOCK" button is pressed, DVR is locked, and it's unlocked by inputting correct password

2.2.6 ZOOM : Zoom In/Out on the images during Live Viewing.

2.2.7 MISC : Miscellaneous functions

2.2.7.1 To substitute for the buttons that are placed on the remote control but that are not placed on the keypad (NET, OSD, Audio Mute, HDD, LOG).

2.2.7.2 If the button is pressed, windows appear, and user can select lower menu one by one.

2.2.8 MENU : Press button to access Main Menu. Press again to return.

2.3 PLAYBACK

2.3.1 REC(Record) : Press once to begin recording all active channels. Press again to end recording.

2.3.2 R.PLAY(Reverse Play) : Press to begin reverse playback. Under PTZ control menu, used to decrease the speed of Pan, Tilt, Zoom, Focus.

2.3.3 STOP : Stop playback.

2.3.4 PLAY : Access to playback

2.3.4.1 Playback button will activate assigned starting position and Channel at playback setup of menu.

2.3.4.2 At pause mode, it will release pause mode.

2.3.4.3 Under PTZ control menu, used to increase the speed of Pan, Tilt, Zoom, Focus.

2.4 DIRECTIONS/SELECT BUTTON

2.4.1 UP : Used to move the cursor up; change possible values in the setup menu; under PTZ control sub menu, used to move camera; or used to adjust focus.

2.4.2 DOWN : Used to move the cursor up; change possible values in the setup menu; under PTZ control sub menu, used to move camera; or used to adjust focus.

2.4.3 LEFT : Used to change possible values in the setup menu. Under PTZ control menu, used to move the camera left or used to do Zoom Out; At playback mode, used to decrease playback speed.

2.4.4 RIGHT : Used to change possible values in the setup menu. Under PTZ control menu, used to move the camera left or used to do Zoom In; At playback mode, used to increase playback speed.

2.4.5 OK : Used as a selection key. Under PTZ control menu, used to be interchanged P/T mode with Z/F mode

2.5 IR RECEIVER : Remote control signal receiver

2.6 LED DISPLAY

2.6.1 POWER : During Standby mode, red light on, during running unit, green light on

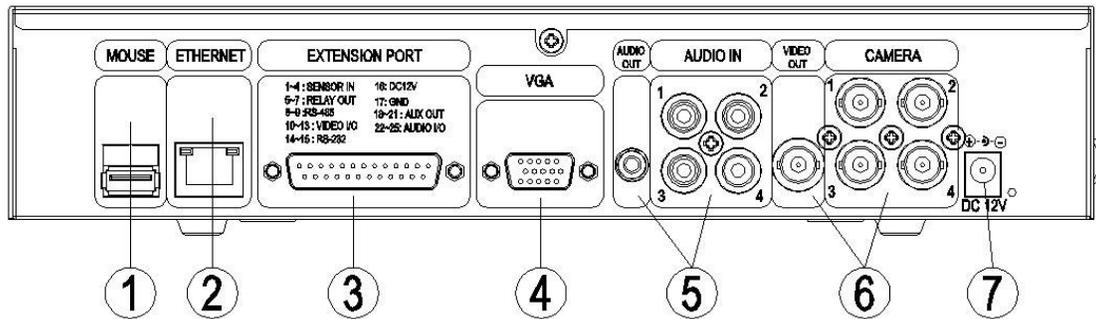
2.6.2 REC : During recording green light flashes

2.7 USB CONNECTOR in the FRONT PANEL

2.7.1 This connector is for USB Memory stick to back up the image

2.7.2 USB mouse available.

3 Rear panel view



- 3.1 MOUSE** : This is USB memory stick terminal to back up HDD video screen. USB Mouse is available.
- 3.2 ETHERNET** : This is to connect 10/100 Base-T network connection port (RJ-45 port).
- 3.3 EXTENSION PORT** : We provide you with SENSOR IN, AUX OUT, RELAY OUT, SERIAL OUT, RS-485 OUT, DC12V OUT and external AV IN/OUT.
- 3.4 VGA** : Standard VGA Video-Out signal is exported. (DSUB-15 male Connector)
- 3.5 AUDIO IN/OUT**
- 3.5.1 INPUT : Audio Line Input terminal.
- 3.5.2 OUTPUT : Audio Line Output terminal.
- 3.6 VIDEO IN/OUT**
- 3.6.1 CAMERA : CAMERA INPUT TERMINAL. This is for CVBS signal input.
- 3.6.2 VIDEO OUT : VIDEO OUT TERMINAL. CVBS signal is exported.
- 3.7 DC 12 V** : Power Source for DVR system.

4 Basic operation procedures

4.1 POWER ON/OFF

4.1.1 Power ON : Using either the keypad or the remote control, press the “Power” button.

(Note: In case of power outage or rare instance of system failure, the DVR will reboot automatically). The Power LED light will turn from red to green when it has turned on properly. In a standby mode, the LED is red.

4.1.2 Power OFF : In order to shutdown the system, you must type in the password. The default password for shutdown is “111111”.

4.2 DATE & TIME SETTING

4.2.1 Set the date and time for the DVR. (**System Setup in Main Menu → Time/Date**)

4.3 PASSWORD SETTING PROCEDURE

4.3.1 Change your password for the DVR. The password must be a 6-digit combined number consisting of numbers 1 ~ 4. (**System Setup in Main Menu → System Password**)

4.4 NETWORK SETTING

4.4.1 There are three types of network setting for the DVR: Static, DHCP, or PPPoE.

Please set the network type. (**Network Setup in Main Menu**)

4.5 RECORDING : Select recording related parameters in the Record Setup in the main menu.

4.5.1 Recording types : Enter in Recording setup of menu. For resolution, select either 720*480, 720*240, 360*240 (NTSC) or 720*576, 720*288, 360*288 (PAL). Audio channel is synchronized with the selected video signal. Select Video input quality (Enhance/ Normal/ Fine/ Super fine), Frame rate (120 fps(NTSC) / 100 fps (PAL)), and

recording mode. 4 channels can be selected at the same time.

4.5.2 Recording modes - Recording mode are made up of MANUAL, CONTINUOUS, MOTION, SENSOR, MOTION+SENSOR, SCHEDULE,. And CONTINUOUS+EVENT mode. A red record light (●) on the top LEFT corner of each channel will indicate DVR recording. In the MANUAL mode, the DVR starts to record on/off whenever the RECORD button is pressed.

4.6 PLAYBACK

4.6.1 Press the Play button : When you push " PLAY" button, playback will begun according to channel, playback beginning point and audio of playback setting mode.

4.6.2 Audio Play : You will hear audio when video files containing audio is selected for playback.

4.7 SEARCH

4.7.1 Search mode : The DVR has 3 types of search modes:

4.7.1.1 Search by Calendar - For user's convenience, we provide calendar type search mode.

4.7.1.2 Search by Event - Search the recording file according to sensor, motion, schedule.

4.7.1.3 Still Image Search - Displays recorded still images.

4.7.2 Search method

4.7.2.1 Calendar Search - When you press Search, select from three options listed.

Among these three options, select calendar mode.(Click " OK" button) Then "Year, Month, Date" will be shown on the screen , when you click each one, hour and minute column will be shown accordingly. Then you can view all selected recorded file at the same time.

4.7.2.2 Event Search - When you press Search, select Event Search from three options

listed. Select Date and Time and Channel and you can find recording file list.

Please click "OK" button to playback.

4.8 BACKUP : The DVR has various types of backup methods:

4.8.1 USB memory Stick - User can backup manually from internal HDD to USB memory stick by connecting one to USB port equipped at rear side of DVR. Connect USB Memory Stick into USB port → Input the start of backup date and time at backup menu → Input the end of backup date and time at backup menu → Select the channel → Select event condition.

4.8.1.1 Video data & still image are available in the USB back up.

4.8.1.2 Our own Simple Player included during back up, it is easy to playback at other P.C

4.8.1.3 User can replay backup files at proprietary UniPlayer client program.

4.8.2 Network - from the remote site it will be backed up to user's P.C

4.9 SOFTWARE UPGRADE

4.9.1 Users can upgrade the software of Ramdisk and Kernel using the USB flash drive (thumb drive) by the following steps.

4.9.2 Get the latest version of software (Ramdisk/Kernel) from distributor.

4.9.3 Copy the downloaded files from the PC to the USB memory.

4.9.4 Connect the USB memory to the USB port.

4.9.5 Go to 'System Setup' then 'S/W Upgrade' then select Ramdisk or Kernel to upgrade.

4.9.6 After the unit recognizes the USB flash drive and upgrading end, the unit will reboot.

5 Basic Password

5.1 DVR

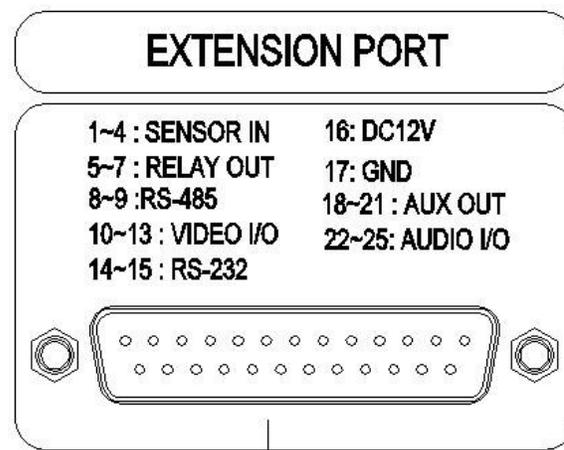
5.1.1 : 111111

5.2 RAMS

5.2.1 ID : admin

5.2.2 PASSWORD : 111111

6 Terminal Information – EXTENSION PORT



NO	NAME	DESCRIPTION	NO	NAME	DESCRIPTION
1	SENSOR IN 1	Sensor Input NO/NO Selectable	14	Serial(TTL) Rx	TTL Level Serial Output Port
2	SNESOR IN 2		15	Serial (TTL) Tx	
3	SENSOR IN 3		16	DC 12V	DC 12V Power
4	SENSOR IN 4		17	GND	
5	RELAY NO	Relay OUT	18	AUX OUT 1	User Programmable Auxiliary Output Port
6	RELAY COM		19	AUX OUT 2	
7	RELAY NC		20	AUX OUT 3	
8	RS-485+	RS-485	21	AUX OUT 4	
9	RS-485-		22	AUDIO IN 1	Additional Audio Input Port
10	VIDEO IN/OUT 1	Additional Video Input/Output port	23	AUDIO IN 2	
11	VIDEO IN/OUT 2		24	AUDIO IN 3	
12	VIDEO IN/OUT 3		25	AUDIO IN 4	
13	VIDEO IN/OUT 4				