

MANUAL

**4CH Digital Video Recorder
MCL-4001A**

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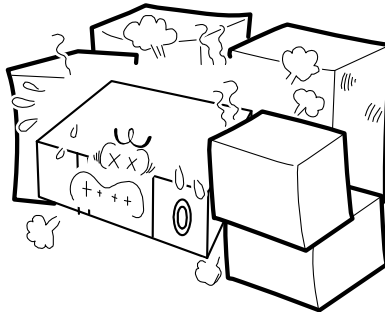
Chapter I. Before Use

1.1. Installation Guide

To ensure the product's best performance, it is recommended to follow below instructions.

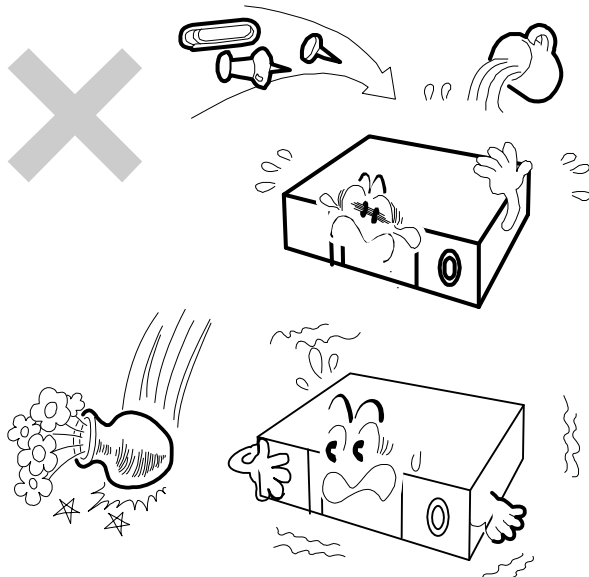
VENTILATION

To prevent from overheating, do not block cover or ventilation.



SHOCK

Place the product where can be free from outer physical shock.

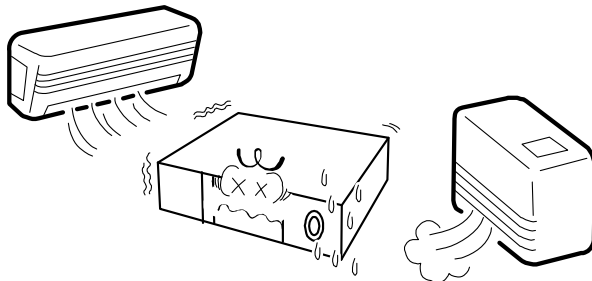


HUMIDITY

Do not place a humidifier near the product as extreme humidity can badly affect the product's normal operation

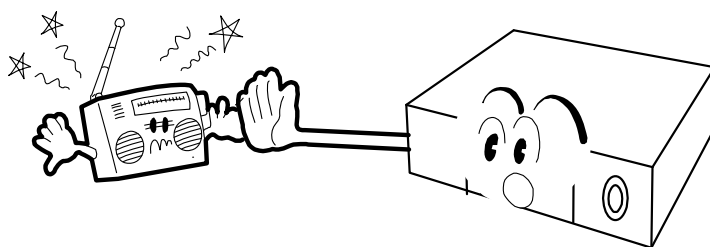
TEMPERATURE

Avoid dust, humidity and do not place the product where temperature changes extremely.



ELECTRIC NOISE

Do not place the product near a microwave, Radio or TV which can generate signal noise due to radio frequency.



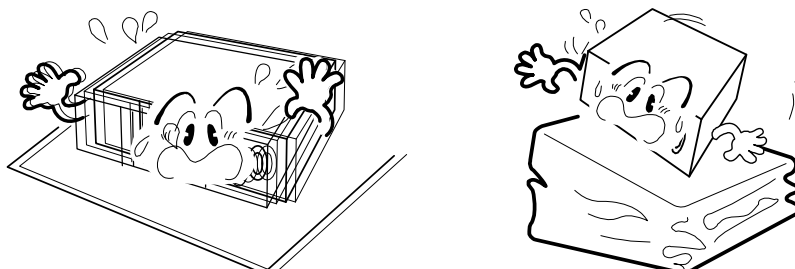
DIRECT RAY OF LIGHT

Direct ray of light can cause abnormal operation. Keep the product away from direct ray of light



VIBRATION

Install the product on even place where no vibration



Follow these details to prevent material damage or personal injury.

Signs of Caution and Warning



Warning: This sign indicates that the user could die or be seriously wounded if not used or installed properly.



Caution: This sign indicates that the user could be wounded or could expect property damage if not used or installed properly.



Warning: Do not expose the product to fog, rain or too much humid to decrease danger from electric shock or fire.

Important Safeguards



Warning

1. Change the battery after turning off the power of the product.
 2. Check the polarity of the lithium battery while changing.
 3. Change the battery with the same one, which is in the product or with the similar type recommended by your vendor.
 4. Dispose of the changed battery according to the instructions of the battery manufacturer.
- ※ There is danger of explosion when instructions are not followed.

General Warning



Warning

1. Use the power cord, which is supplied or recommended by the supplier, or it may cause fire.
2. Do not disassemble or reassemble the product. It may cause malfunction or fire.
3. Enquire to your vendor for repair. It may cause electric shock or fire if the repair is not done properly.
4. Do not touch the product with wet hands. It may cause malfunction or electric shock.
5. Product installation must be ensured to a professional for product installation, or it may cause malfunction, electric shock or fire.
6. Prevent metallic foreign substance from going inside the product. It may cause malfunction or electric shock.
7. Do not spray insecticide or flammable spray while driving. It may cause fire.
8. Place the system in a open place where air ventilation is guaranteed, or it may cause over-heating and seriously damage the system to be fired.
9. Prevent water from instilling inside electrical parts. Clean with a dry towel or malfunction or electric shock could result.
10. Use a proper power source. Do not operate this product from a power source that applies more than the specified voltage (DC 9V to 35V at least 0.5A or over).
11. Use a proper unit in vicinity temperature from -20°C to +70°C. If not, it may cause malfunction or electric shock.
12. Do not operation unit during drive by yourself. It may cause serious accident or die.
13. This unit is only support device for user's convenience. Keep in mind use safety.

1.2. Introduction

This device is video blackbox for motor vehicle which is recording video and data to CF-card, SSD card or HDD Storage about many information from installed cameras, GPS, G-Sensor or/and others during vehicle is operated or parked. It can be evidence for accident or investigation.

This device provides easy installation and removes for installer.

Reason for using CF-card which is higher protects loose stored data from impact or vibration than Hard Disk Drive. Also, it gives to user easy replace storage device or/and easy carry. We provide PC viewer software. It gives you easy user interface search and abstraction data on PC.

This device fitted car surveillance item but it based from CCTV Stand Alone DVR. That means it has high quality and specs so it gives satisfaction for user's wanted.

Many options which are GPS, G-sensor and storage are cover from many buyers request site by site because many of projects or clients have different surrounding and situations.

1.3. Specification

MCL-4001A			Specifications	
Video	Input	Channel	4CH (Customized connection)	
		Signal Selection	Auto Detection (NTSC / PAL)	
		Input Type	Composite 1.0Vp-p±10%, 75Ω	
		Signal Format	NTSC / PAL	
		Video Loss Check	Support	
	Output	Display output	TV-OUT (1)	
		Output Type	Composite 1.0Vp-p, 75Ω	
		Signal Format	NTSC / PAL	
Audio	Input	Channel	4CH (Customized connection)	
		Codec	ADPCM	
	Output (Mono)		1ch	
Alarm	Sensor Input		3ch (Terminal)	
	Alarm Output		1ch (N.C/N.O)	
Live			NTSC	PAL
	Frame Rate		120fps(30fps/CH)	100fps(25fps/CH)
	Channel Disable		Support	
	Video Loss Detection		Support	
	Screen Split		1, 4	
	Rear View Auto Popup		depend on SW	
Recording	Compression		H.264	
	Source File Format		own file format / *.AVI	
	Resolution & Speed		NTSC	PAL

Codec Mode	360x240 / 352x288	Max 120fps(30fps/CH)	100fps(25fps/CH)
	720x240 / 720x288	Max 120fps(30fps/CH)	100fps(25fps/CH)
	720x480 / 720x576	Max 60fps(15fps/CH)	50fps(12.5fps/CH)
Adjust Frame Rate per channel		Support	
Frame Rate Concentration		Event Driven	
Average Data Size	360x240/ 352x288	2K byte / PIC (High Quality)	
	720x240/ 720x288	4K byte / PIC (High Quality)	
	720x480/ 720x576	8K byte / PIC (High Quality)	
Image Quality Level	VBR	5 Levels	
	CBR	5 Levels	
Recording Mode		Continuous /w Motion, Sensor or both	
Motion Detection Sensitivity		Support	
Pre Recoding by Alarm		1~30 sec	
Post Recoding by Alarm		2~300sec	
CF Full Warning (Overwrite)		Beep & OSD Indication Alert	
daylight saving time		Support	
Storage	External CF Memory Card	Interface Type	CF Memory Card
		Capacity of 1 CF	Over 4 Giga Byte
Search & Playback	Playback (Viewer S/W)	Control	one step Forward/ Reverse, Play, Fast Forward/ Reverse
		Speed	x2, 4, 8
	Real time Playback		Support
	Search Mode		Time & Date, Event
Network	Max Accessible Clients		3
	Network Type		Wireless Ethernet
	Network Interface		802.11 B/G/N
User I/F	Video Stream with OSG	Own viewer S/W /* H.264 supported Media Player for PC	

Additional Function	Multi-Language	Support (Viewer S/W Only)
	GPS	external GPS-option
	Alarm Output (Normal Status)	Support
System	Control & Debugging	RS232
	Operation System	Embedded Linux (Ver. 2.6.xx)
	Dimension (W x H x D mm)	120x40x153
	Net Weight	-
	Power Out	12V DC to camera (4 channel)
	Power Source	9~35V 1A

- **Optional Function**

Each Channel Data Storage				
Res. \ FPS	7.5(6)fps	15(12)fps	30(25)fps	
360x240(288)	29MB/Hour	57MB/Hour	113MB/Hour	
720x240(288)	57MB/Hour	113MB/Hour	225MB/Hour	
720x480(576)	113MB/Hour	225MB/Hour	450MB/Hour	

- Above data are only displayed expected average numbers. It can be changed user's setting.

1.4. Material in a Package

**CF-Card is not included.



DVR



**Remote
Controller**



Cable (Optional)



Cable (Basic Standard)

1.5. Installation



How to connection with Basic Standard Cable

Power for Camera: Connect First of Red **+12V** cable with Fourth Black GND cable to power in for cameras. It must be careful polarity each cables.

Video Input: Connect Second Yellow Video cable with Fourth Black GND cable to Video out for cameras

Audio Input: Connect Third White Audio cable with Fourth Black GND cable to Audio out to Microphones.

Must do cable connect before power off the device.

After connection all cables, check devices work fine with power.

Customized cables will be compatible every ports. You can connect matched it.

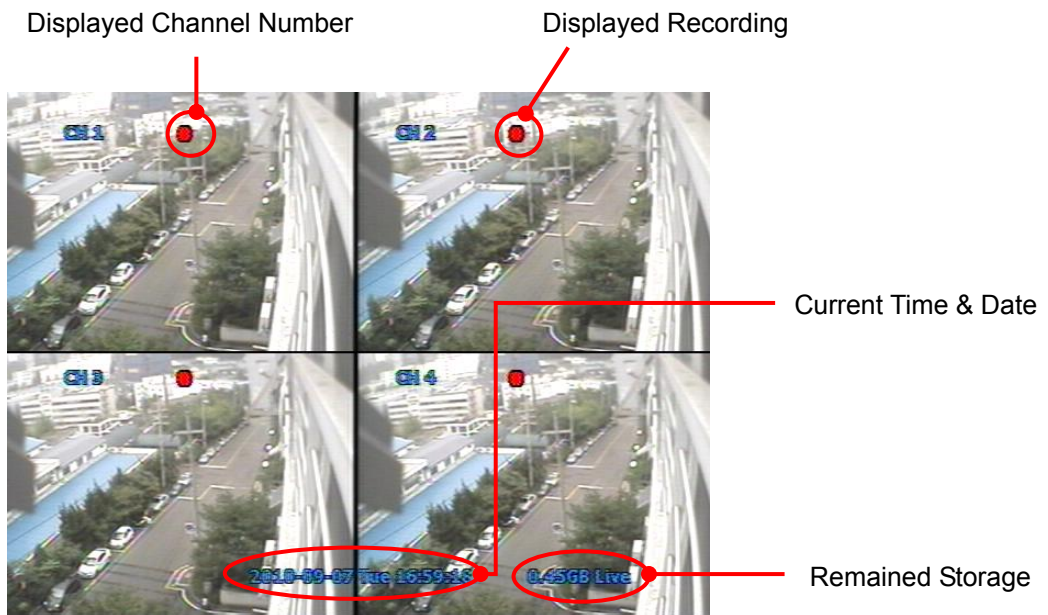
Chapter II. Getting Started

2.1. IR Remote Controller



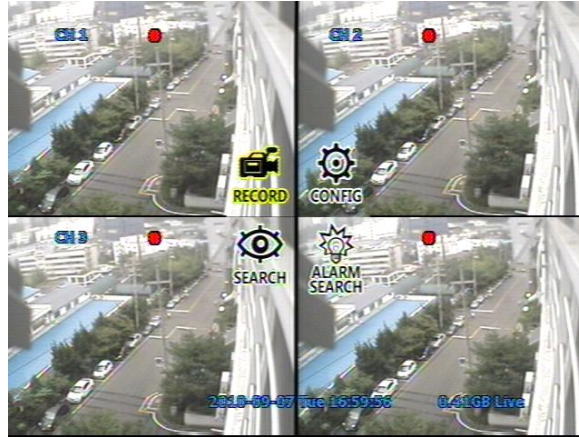
- 1 Record
- 2 Quad Mode
- 3 Zoom
- 4 Enter
- 5 ESC
- 6 Menu
- 7 OSD ON/OFF
- 8 Cursor (Up, Down, Right, Left)
- 9 Channel & functions

2.2. Live Screen



2.3. Menu Screen

- a. Record : Set Frame Rate, Quality, Resolution each channels.

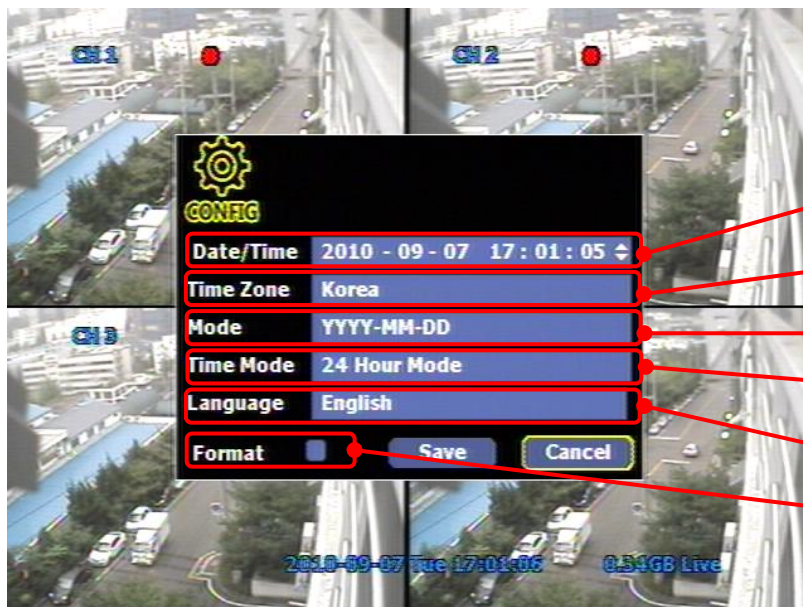
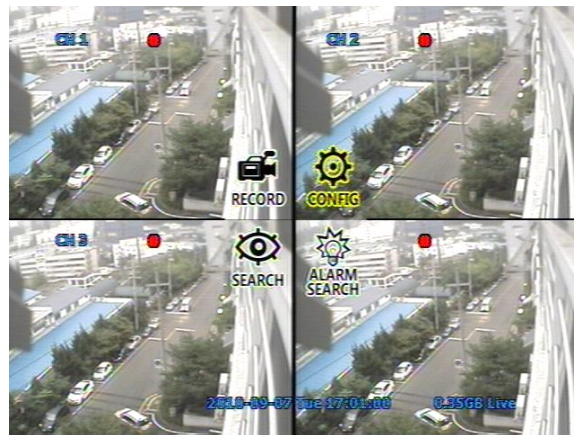


Set Frame rate Each Channels
(NTSC : 0, 1, 3, 7, 15, 30)
(PAL : 0, 1, 3, 6, 12, 25)

Set Resolution for Each Channel
(Full D1, Half D1, CIF)

Video Quality for Each Channel
(High, Middle, Low)

b. Config : Set Date & Time, Language and Format



Set Year, Month, Time

Set GMT time zone

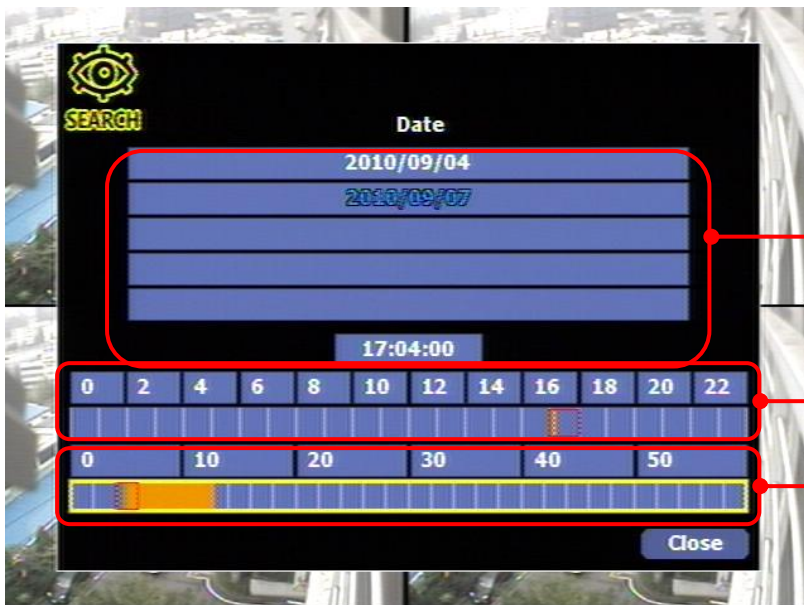
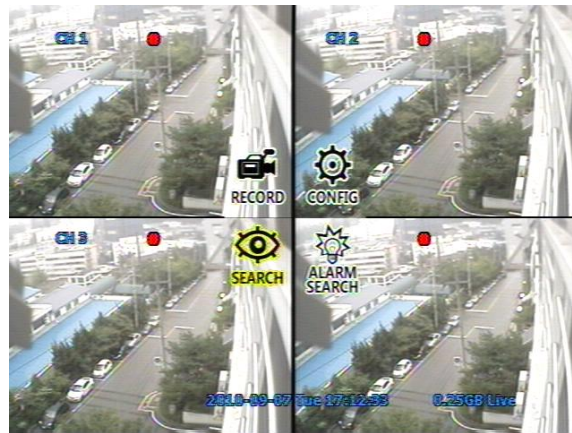
Display mode for Date & Time

Set Time mode

Set Language

Format Storage
(After Format function you must
reboot system.)

c. Search : Search by Time & Date from recorded data.

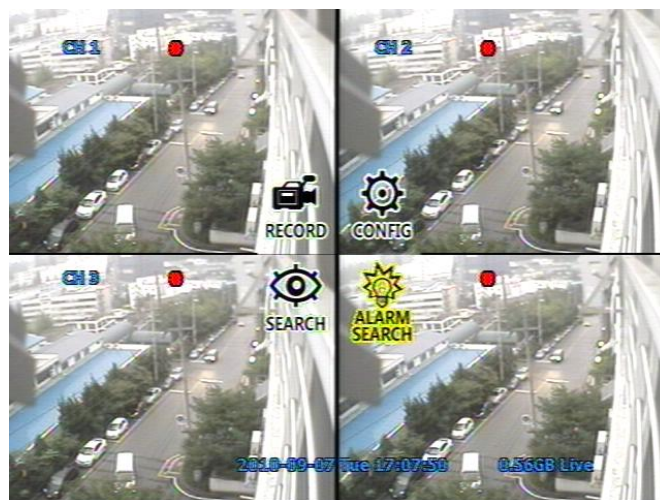


Pick recorded Date

Pick Recorded Hour

Pick Recorded Minute

d. Alarm Search : Search by Time & Date for Power On/Off and Alarm from recorded data.



2.4. Playback Screen



Close : Escape from Playback mode



PREV : Revert frame by frame



FR x2, x4, x8 : Fast Revert play mode. Speed will be changed each time pressed button.



REV 1/2, 1/4, 1/8 : Slow Revert play mode. Speed will be changed each time pressed button.



REV – Revert Play mode.



PAUSE – Pause the playback



PLAY – Playback



PLAY 1/2, 1/4, 1/8 : Slow play to forward. Speed will be changed each time pressed button.



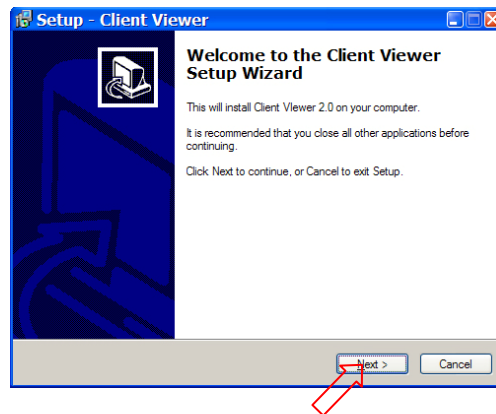
FF x2, x4, x8 : Slow play to forward. Speed will be changed each time pressed button.



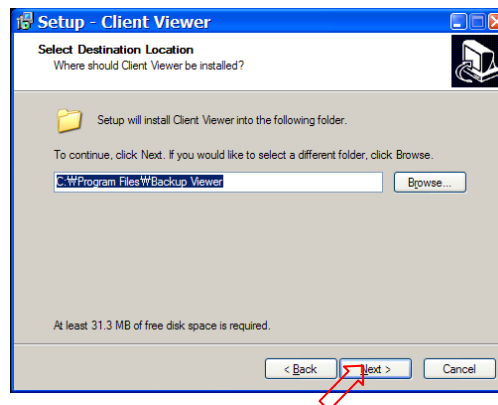
NEXT – Play to forward frame by frame

Chapter III. Viewer Software

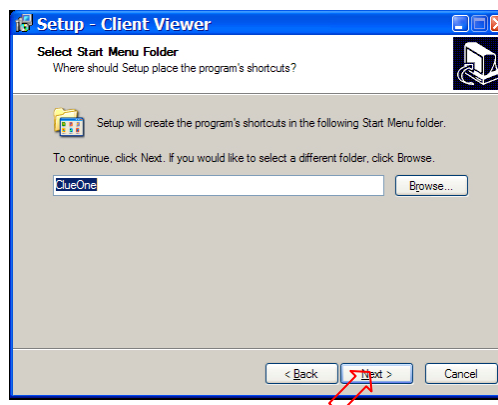
3.1. Installation Viewer on PC



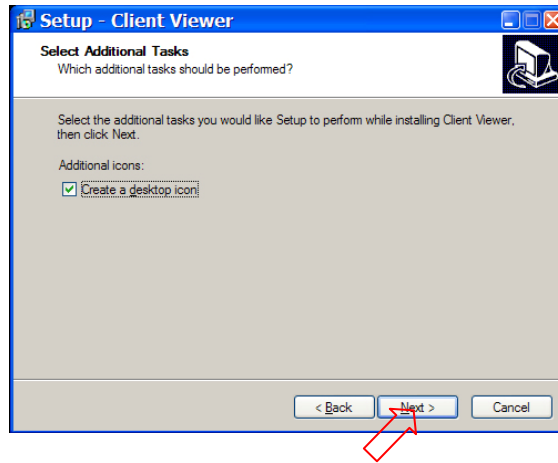
1. Click next



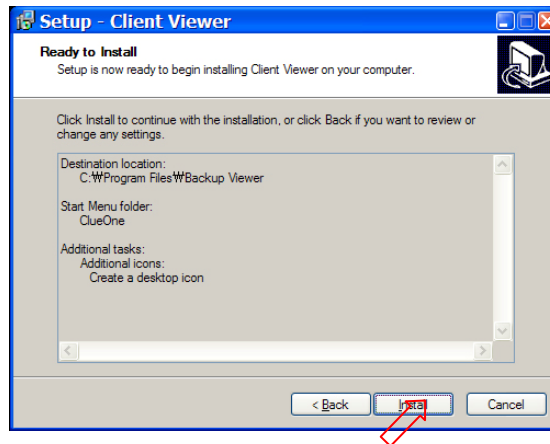
2. Find expected Folder for install of PC VIEWER.



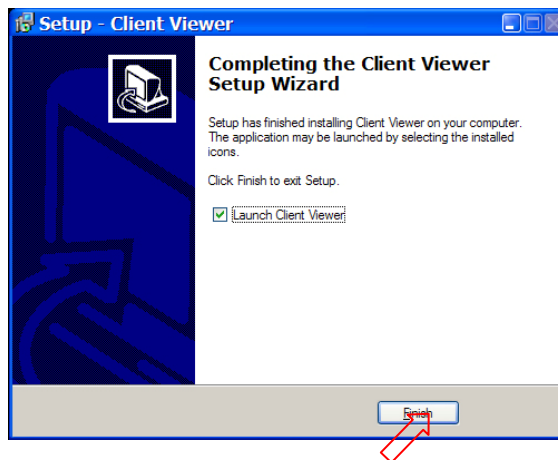
3. Choose install File on selected Folder.



4. Choose Create icon on Desktop on PC.

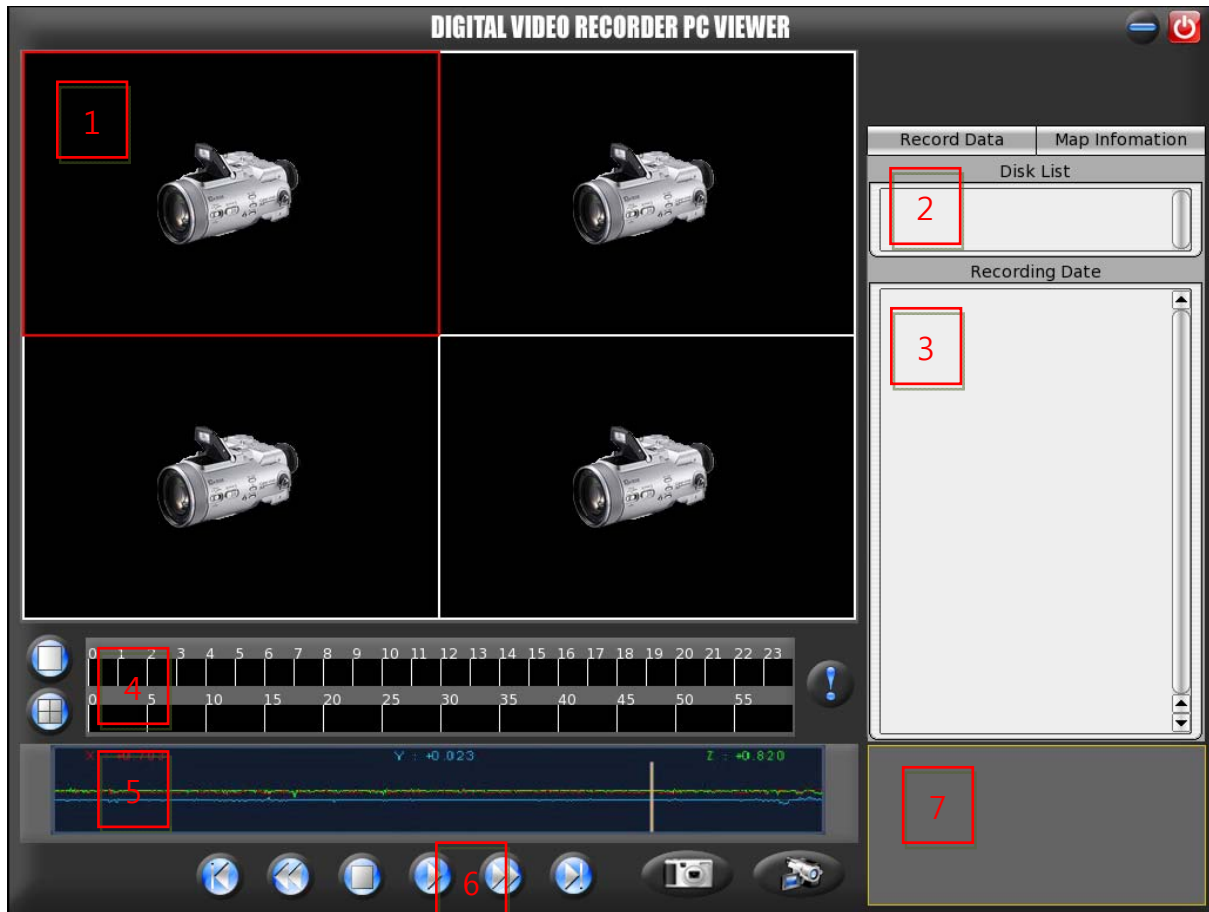


5. After ready for installing software, Click Install button.



6. All done install for Viewer software on PC.

3.2. Viewer Window



1. Displayed lose or none data founded.
2. Displayed Driver name connected CF Card on PC.
3. Displayed Recorded file with Date on CF Card.
4. Displayed color table hours on the top line and Minute on the bottom line for selected Date.
5. Displayed G-sensor value. It is shown 3 different graphs for 3 axial.
6. Playback control button group.
7. Displayed information of playback data.

3.3. Viewer Icons



Minimize PC VIEWER window.



Close PC VIEWER Software on PC.



Full screen any channel.



Display by Quad Screen.



About PC VIEWER.



Play



Stop



Revert Play frame by frame



Play frame by frame



Fast Revert Play. X2, X4 and X8 speed when click each time.



Fast Forward. X2, X4 and X8 speed when click each time.



Capture selected screen.



Convert to AVI file selected area.

3.4. Backup

a. Save by capture images



Click Icon.

The screenshot shows a software dialog box titled "Save Still Image (JPEG Format)". It has two tabs at the top: "Record Data" and "Map Information". The main area displays "Captured File:" followed by the filename "02-20090829-53800000.jpg". Below this is a "Select Directory" section with a text input field and a "+" button. A list of directories is shown below: "c:\", "d:\", and "g:\". At the bottom, there are three buttons: "Capture Now", "Save Image", and "Close Window". Red lines with dots point from text labels on the right to specific elements in the dialog box.

- Saved file name to target
- Directory to target
- Capture image
- Save image
- Close capture image feature

b. Save by Video Clip (AVI file format)



Click Icon

Record Data | Map Information

Save to AVI File from Start to End

Disk List

g

Recording Date

Set Start 0000/00/00 00:00:00

Set End 0000/00/00 00:00:00

Select Save Location

Save To Start Saving AVI

Select drive has source

Select Date has source

Select Start time from TIME TABLE

Select End time from TIME TABLE

Save to Target Drive and folder

Start converting AVI file to target

TIME TABLE

